70 YEARS OF INNOVATION

ELAN SKIS TECHNICAL MANUAL

2015/16

elan

WWW.ELANSPORTS.COM

THE MOST INNOVATIVE BRAND IN SPORTS EQUIPMENT

Given the number of awards the company has received in the last 8 years, Elan is undoubtedly on the right track. While the company is certainly flattered by all the attention it gets from award committees, it knows that its true judges are the loyal users of its products. Elan is committed to constantly developing innovative, functional and elegantly designed products for every product line.

The title of Most Innovative Brand, the highest award presented annually by the German organization Plus X Award, has been bestowed on Elan for three years now, in 2012, 2013 and 2015.

The award-winning brands are selected on the basis of their outstanding achievements in the areas of quality, design, user experience, functionality, ergonomics and environmental consciousness. Receiving this award certainly constitutes a validation of Elan's vision of becoming number one in sporting goods innovation.

Yet, as mentioned, it is the smiles on skiers' faces that bring the company the greatest satisfaction.

With 47 awards and counting, Elan is a real award collector.

Most innovative brand in 2012, 2013 and 2015

COLLECTION 1314
Amphibio 14 Fusion

COLLECTION 1415
Junior U-Flex concept

COLLECTION 1314
Amphibio 14 Fusion
Delight QT
SLX Fusion
Spectrum 115 ALU

COLLECTION 1415
Junior U-Flex concept

COLLECTION 1516
Amphibio 16Ti2 Fusion
Delight ski & ski boot set
Spectrum 95 Carbon

COLLECTION 1112
Amphibio WaveFlex™ 14
Amphibio WaveFlex™ 82 XTi

COLLECTION 1213
Amphibio WaveFlex™ 14
Ilumina

COLLECTION 1011
WaveFlex™ 14

COLLECTION 0809
Speedwave series

COLLECTION 1213
Amphibio WaveFlex™ 14

COLLECTION 1112
Amphibio WaveFlex™ 14

COLLECTION 1213
Amphibio WaveFlex™ 14

COLLECTION 1314
Delight QT

COLLECTION 1415
Junior U-Flex concept

COLLECTION 1516
Amphibio 16Ti2 Fusion

COLLECTION 1516
Amphibio 16Ti2 Fusion

COLLECTION 1011
WaveFlex™ series

COLLECTION 1112
Amphibio WaveFlex™ 14

COLLECTION 1213
Amphibio WaveFlex™ 14

COLLECTION 1314
Amphibio 14 Fusion
SLX Fusion
Delight QT (Honourable mention)

COLLECTION 1516
Amphibio 16Ti2 Fusion
Race SLX

COLLECTION 0708
Speedwave series

COLLECTION 1213
Amphibio WaveFlex™ 14
Amphibio WaveFlex™ 82 XTi
Ilumina
Puzzle TBT

COLLECTION 0607
Speedwave series

COLLECTION 1112
Amphibio WaveFlex™ 14

COLLECTION 1213
Ilumina

COLLECTION 1314
Delight QT

COLLECTION 1516
Delight 65 InTemp

COLLECTION 0708
Speedwave series

COLLECTION 1011
Race SLX

COLLECTION 1112
Amphibio WaveFlex™ 14
Amphibio WaveFlex™ 82 XTi

COLLECTION 1213
Amphibio WaveFlex™ 14

COLLECTION 1314
Amphibio 14 Fusion
SLX Fusion
Delight QT (Honourable mention)

COLLECTION 1516
Amphibio 16Ti2 Fusion
Race SLX

AMPHIBIO 4D TECHNOLOGY

The combination of our Amphibio® Profile with shaped Titanium allows us to create the first 4D technology that features a rockered outer section of the ski, for easy turning, and a camber inside section for edge grip, with a convex tip for precise turn entry and a concave tail for a quick exit from turns.

FRONT
Precise entry

LEFT
Edge grip

RIGHT
Easy turning

BACK
Quick exit

The first ski with 4 dimensional technology

Content

Technical Manual SKIS

- Elan Skis Technologies ..... Page 6
- Technical Information ..... Page 8
- Mounting Positions for Skis ..... Page 9
- Instructions & Product Warranty..... Page 12

Technical Manual BINDINGS

Features & News

- News ..... Page 16
- Ambition ..... Page 18
- Adrenalin ..... Page 20
- Attack ..... Page 22
- Safety features ..... Page 23

Technical Information

- Parts-Reference Chart Retail ..... Page 24
- Parts-Reference Chart AAA-Series ..... Page 25
- Data–Binding Line Retail ..... Page 26
- Parts-Reference Chart Rental..... Page 28
- Data–Binding Line Rental ..... Page 29
- Rental: SymPro-ESP / SymRent-ESR ..... Page 30
- Spare Parts Handling (WEB) ..... Page 31
- Elan Brake Line ..... Page 32
- Workshop Tools & Aids ..... Page 34

Mounting Bindings and Plates

- Drill Template Selection ..... Page 35
- Drill Template 92 W & 92 FAT ..... Page 37
- Drill Template Adrenalin ..... Page 41
- Drill Template Ambition ..... Page 45
- Drill Template Attack DEMO ..... Page 49
- Drill Template 94 W ..... Page 52
- Drill Template RACEPLATE 09 ..... Page 54
- Mounting instruction Fusion^4 ..... Page 56
- Mounting instruction QT Adult bindings ..... Page 58
- Mounting instruction QT Junior & Lady bindings ..... Page 59
- Drill Template SP 2003 W and SP 2003 FAT ..... Page 61
- Drill Template SR 2003 W ..... Page 63
- Mounting Elan Bindings on Plates ..... Page 65
- Binding/Plate-Coordination Line ..... Page 66
- ELAN Brake Matrix ..... Page 67
- Boot-Handling and Testing ..... Page 68
- Maintenance and Service ..... Page 70
- Troubleshooting (including Rental) ..... Page 74

Adjustment

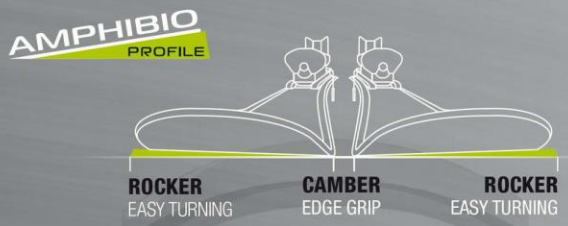
- Classify Yourself ..... Page 75
- Release/Retention Adjustment Table ..... Page 76
- Release/Retention ..... Page 77
- SymPro & SymRent on the Shop Floor ..... Page 78

Dealer Service Information

- Elan Certification Requirement ..... Page 82
- Elan Indemnity Program ..... Page 84
- ELAN Limited Warranty ..... Page 86
- Risk Management ..... Page 87
- Use of non-Recommended Settings ..... Page 89
- Post-Accident Inspection Report ..... Page 90
- System Performance Report ..... Page 91

Appendix

- The Binding List for Retailers - previous seasons ..... Page 92
- Equipment Rental Form ..... Page 93
- Use of the Equipment Rental Form ..... Page 95



AMPHIBIO PROFILE

EDGE GRIP, EASY TURNING

+

DUAL SHAPED TI

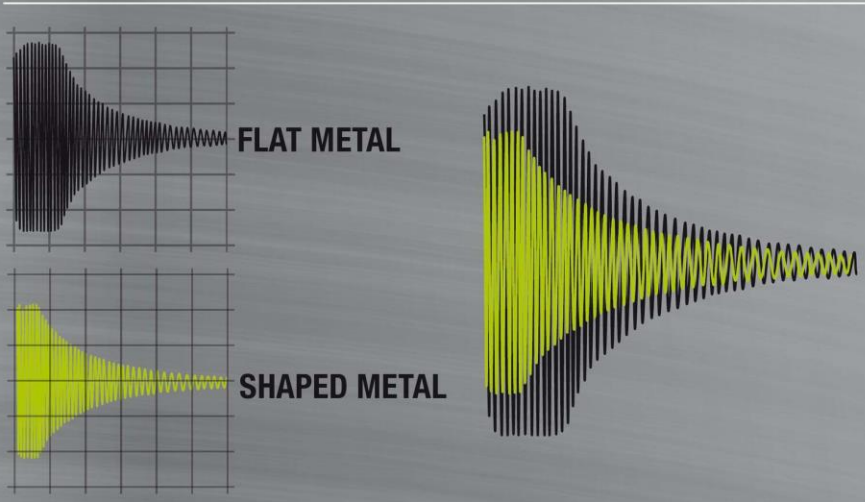
PRECISE ENTRY, QUICK EXIT

CONCAVE & CONVEX

CONCAVE
ski tails enable quick exit

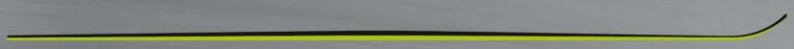
CONVEX
front allows perfect edge contact for precise entry

VIBRATIONS ANALYSIS CHART



30%
REDUCED VIBRATIONS

THINNER PROFILE



10%
LESS WEIGHT

TECHNICAL MANUAL
SKIS
2015/16

Technical Information

PRODUCT PREPARATION

Product preparation is of a high importance for every user. All Elan Skis are engineered and produced according to the actual ISO standards for alpine skis, but even the best manufactured product with the best materials used will not perform well if minimal preparation and maintenance rules will not be followed.

1. TUNING

Each and every ski needs to be tuned properly and regularly to maintain its performance and safety. Factory tuning is done on industrial machinery and cannot be copied manually. Only authorized people with knowledge about the handling of service machines should service the skis.

Sintered bases require more frequent waxing but are harder and more resistant to impact damage; extruded bases are less demanding as far as waxing is concerned, but due to their softness may require more frequent repairs of impact damage.

Steel edges are to be sharpened once the edge grip gets less strong or the edges are damaged. Even after only a few days of skiing on ice, the skis can significantly lose their edge grip.

For the tuning of Elan skis we recommend the following edge geometry:

Angle from base: 1° ± 0,5°

Angle from side: 1,5° ± 0,5°

2. DRILL BITS

Proper binding installation is essential for the optimal performance of the product and proper binding function. Follow the chart of catalogue ski models below regarding the diameter of the drill-bit and depth of drilling. Holes must be sealed with glue. Please, contact the local distributor for non-catalogue models.

Drill bit	Ski
Ø4.1 x,9.0 mm	SLX FIS, GSX FIS, FX SGX, FX DHX, FX SGJ, Airline, Ripstick FIS, Bloodline, GSX Team, SLX Team, GSX Master & 25, RCG, RCS, RCX GSX, SLX, SL, Ripstick, SLX/GSX/SLR/GSR Waveflex Amphibio 88xtii, 82xti, 12ti, 13, 14ti, 16ti2, 18xti SPECTRUM 115Alu, 105Alu/Carbon, 95Alu/Carbon, Boomerang, Puzzle TBT, Sling Shot Speed Magic, Insomnia, Delight, Twilight 76
Ø3.6 x 9.0 mm	all EXPLORE series, all e/Flex, all Waveflex, Amphibio 84xti/84ti/78ti/76/9/10/11, RSX Race Himalaya, Alaska, Alaska PRO, Karakorum, Lhotse Spectrum 85, Pinball, Twist Inspire, Ilumina, Black/White Magic, Zest, Zest Black/White, Twilight 84/90, Snow, Snow, White/Black Perla, Ilure, Avidity Freeline, Vario EXAR eRise 76, EXAR eRise 72, EXAR Race, EXAR GX, Explore, Exar Pro (≥140cm), Explore Pro (≥140cm) My Own (≥140cm), Jett (≥140cm), Starr (≥140cm), Maxx (≥140cm), RC Race (≥140cm), Sky (≥140cm) Pinball PRO/Team (≥140cm), Petit (≥140cm)
Ø3.6 x 9.0 mm + 2 component glue	TRIGLAV
Ø4.1 x 7.0 mm	
Ø3.6 x 7.0 mm	Exar Pro (<140cm), Explore Pro (<140cm) My Own (<140cm), Jett (<140cm), Starr (<140cm), Maxx (<140cm), RC Race (<140cm), Sky (<140cm) Pinball PRO/Team (<140cm), Petit (<140cm)

3. MOUNTING POSITIONS

The mounting position is usually close to the gravity point of the ski. Any variation towards the tip will make the ski more aggressive and quicker to turn any variation towards the tail will make it accelerate better out of turn.

4. MOUNTING POSITIONS FOR SKIS

This measurements should be taken from the tail of the ski and indicate the boot center.

All measurements are in millimeters.
Acceptable tolerance +/- 1.5mm

Mounting Positions for Models 2015/16

RACE COMPETITION	Length	183	188	190	195
GSX FIS	Mounting pos.	780	800	825	830

	Length	157	165
SLX FIS	Mounting pos.	695	725

	Length	174	181	191
GSX Cross	Mounting pos.	/	/	810
FX SGJ	Mounting pos.	745	775	820

	Length	201	205	210	211	218
FX SGX	Mounting pos.	870	890	/	920	/
FX DHX	Mounting pos.		/	915	/	960

	Length	150	160
Airline	Mounting pos.	640	680

	Length	125	141	158	170	175	181	191
Bloodline	Mounting pos.	515	595	670	740	770	800	850

	Length	145	151	166	174	182
GSX Team	Mounting pos.	/	/	692	730	780
SLX Team	Mounting pos.	631	663	/	/	/

	Length	134	142	150	158
RCG	Mounting pos.	580	615	655	692

	Length	122	128	133	139
RCS	Mounting pos.	/	/	558	590
RCX	Mounting pos.	514	540	/	/

RACE SERIES	Length	152	158	164	170	176	182	186
GSX, Ripstick	Mounting pos.	/	/	/	720	780	810	830
GSX Master	Mounting pos.	/	/	/	/	780	810	830
GSX Master 25.0	Mounting pos.	/	/	/	/	/	780	/
GSR WaveFlex	Mounting pos.	640	675	705	735	765	795	/

	Length	145	150	155	160	165	170
SLX / SL	Mounting pos.	/	/	690	715	740	765
SLX WaveFlex,	Mounting pos.	625	655	680	705	730	755
SLR WaveFlex	Mounting pos.	/	655	680	705	730	755

RACE JR. SERIES	Length	110	120	130	140	150
RC race	Mounting pos.	500	545	590	635	680

ALL MOUMTAIN AMPHIBIO	Length	152	160	164	166	168	170	172	176	178	182	184
Amphibio 88xti	M. pos.	/	/	/	/	/	765	/	800	/	/	830
Amphibio 84xti, 84ti	M. pos.	/	/	735	/	/	760	/	785	/	810	/
Amphibio 83	M. pos.	/	/	/	/	800	/	/	825	/	850	/
Amphibio 78ti, 78 carbon	M. pos.	670	705	/	/	740	/	/	775	/	/	/
Amphibio 76, 11, 10, 9	M. pos.	655	692	/	/	727	/	/	765	/	/	/
Amphibio 18, 16, 14	M. pos.	/	710	/	740	/	/	770	/	800	/	/

ALL MOUMTAIN AMPHIBIO	Length	152	160	164	166	168	170	172	176	178	182	184
Amphibio 13, 12	M. pos.	660	695	/	/	730	/	/	765	/	/	/
Amphibio 10 / 11 / 76	M. pos.	655	692	/	/	727	/	/	765	/	/	/

ALL MOUMTAIN	Length	140	144	152	160	168	176
Explore 10ti	Mounting pos.	/	/	688	725	736	772
Explore 8, 5, 4	Mounting pos.	/	650	688	725	736	772
Explore 7, 6, Waveflex 7	Mounting pos.	/	/	665	700	735	770
E/Flex Carve	Mounting pos.	626	650	685	725	763	/
E/Flex GX, Waveflex 5	Mounting pos.	/	650	688	725	763	/
Waveflex 72, 9	Mounting pos.	/	/	675	710	745	780

TOURING Series	Length	156	163	170	177	184
Himalaya	Mounting pos.	/	685	720	755	790
Lhotse	Mounting pos.	/	685	745	760	815
Alaska PRO	Mounting pos.	650	685	720	755	/

	Length	154	162	170	178
Karakorum	Mounting pos.	674	712	750	788

TOURING Race	Length	161
Triglav	Mounting pos.	695

BIG MOUNTAIN Series	Length	170	173	176	180	182	185	187	193
Spectrum 115 Alu	Mounting pos.	/	/	/	/	/	850	/	890
Spectrum 105 Alu / Carbon	Mounting pos.	/	755	/	790	/	/	825	/
Spectrum 95 Alu / Carbon	Mounting pos.	/	755	/	810	/	/	845	/
Spectrum 85	Mounting pos.	800	/	825	/	850	/	/	/

FREESTYLE Series	Length	174	180	182	188	190
Boomerang	Mounting pos.	/	870	/	/	920
Domino	Mounting pos.	807	/	835	863	/

	Length	161	166	171	176	181
Puzzle TBT	Mounting pos.	775	800	820	850	875

	Length	149	156	161	166	171	176
Sling Shot	Mounting pos.	733	755	780	805	830	855

	Length	145	155	165	175
Pinball / Twist	Mounting pos.	715	750	800	850

FREESTYLE JR. Series	Length	105	115	125	135	145
Pinball PRO / Twist PRO	Mounting pos.	519	567	616	665	715

W Studio - Performance	Length	145	150	155	160	165
Speed Magic	Mounting pos.	641	665	690	715	740

	Length	140	146	152	158	160	166	168
Insomnia	Mounting pos.	/	/	680	/	710	740	/
Instinct	Mounting pos.	/	/	660	695	/	730	/
Inspire	Mounting pos.	/	/	670	705	/	740	/
Ilumina	Mounting pos.	630	659	690	715	/	/	/

	Length	140	146	152	158	160	166	168
Delight	Mounting pos.	630	655	680	705	/	740	/
Black Magic / White Magic	Mounting pos.	639	667	695	723	/	/	/
Ilure, Avidity	Mounting pos.	/	628	655	692	727	/	/
Zest (all models)	Mounting pos.	615	640	665	700	/	/	/
Snow, Black & White Perla	Mounting pos.	626	650	688	725	/	/	/

TWILIGHT Series	Length	140	146	150	152	155	159(8)	164	166	168	173
Twilight 90	Mounting pos.	/	/	/	/	665	/	710	/	/	755
Twilight 84	Mounting pos.	/	/	645	/	/	690	/	/	735	/
Twilight 76	Mounting pos.	630	655	/	680		705	/	740	/	/

JUNIOR Series	Length	70	80	90	100	110	120	130	140	150
Jett , Starr, Sky, Maxx, MyOwn	Mounting pos.	314	361	408	455	493	538	582	628	675
Formula, Pinball Team, Lil'	Mounting pos.	300	350	400	444	493	538	582	628	675

INLINE RENTAL	Length	140	146	152	158	160	168	176
RSX Race	Mounting pos.	/	/	662	/	698	736	772
White Magic	Mounting pos.	639	667	695	723	/	/	/

RENTAL	Length	120	130	140	150	160	170	175
Explore eRise 76	Mounting pos.	/	590	645	680	715	750	785
Explore eRise 72	Mounting pos.	560	590	645	680	715	750	/

	Length	144	152	160	168	176
Explore 70	Mounting pos.	645	685	720	760	/
Exar Race	Mounting pos.	/	665	700	735	770
Explore eRise 80	Mounting pos.	/	674	712	750	788

RENTAL Junior	Length	70	80	90	100	110	120	130	140	150
Exar Pro	Mounting pos.	300	350	400	450	500	545	595	639	690
Explore Pro	Mounting pos.	314	361	408	455	500	545	595	639	690

SHORT SKIS	Length	99	125	135
Freeline	Mounting pos.	450	605	650
Vario	Mounting pos.	450	/	/

Instructions & Product Warranty

For the proper performance, storage and maintenance of your ski, you must carefully read the following instructions.
Each and every ski needs to be tuned properly and regularly to maintain its performance and safety. Tuning is done on industrial machinery and cannot be copied manually.

Only certified ELAN ski mechanics with knowledge about the handling of service machines should service the skis, set and adjust skis with the correct tools, perform proper binding installation and explain the use and the maintenance of your ski system.

The Elan skis should only be used with bindings and boots that conform to accepted international standards.

Bindings should be mounted, adjusted and maintained only by certified ELAN ski mechanics in accordance with the manufacturer`s specifications. Proper binding installation is essential for the optimal performance of the product. Improper settings or maintenance may increase the risk of an injury.

Continued use of the skis will create wear and tear on the ski running bases and ski edges. Have your system (skis, boots and bindings) checked, tested and serviced by a certified ELAN ski mechanic, with proper mechanical tools, annually or after every 15 to 20 days of use, whichever comes first. In case the skis do not have the proper service for repairing damage, that could eventually result in delamination, humidity penetrating the wood core, or rust on the inside section of the steel edges of skis.

Skiing is a hazardous activity. The sport of skiing and the use of ski equipment involve a risk of injury to any and all parts of the body. Those dangers are inseparable even from a properly made product. Skiing requires physical preparation, technical skill and caution.

Using skis by children should be done only under child care supervision of certified ski instructor.

Use caution when handling the skis as ski edges are sharp and dangerous.

Use ski bag to protect your skis.

Store skis in a dry place at room temperature, not exposed to direct sunlight or direct sources of heat. Storing of wet skis in unsuitable rooms can result in rust on the steel edges which can again result in destruction, or delamination.

The ski size should not be in discrepancy between the skier's weight and body height and the chosen ski design.

The skis are designed for certain loads only, and the skier is responsible for any excessive force used. The skier must use the proper skiing technique and to avoid to shock or overstress skis, which could results in delamination and break. The skier should not damage the skies (striking with tails against a hard surface to remove the snow, striking the two skis together, scratches). The skis are designed for skiing on snow which is why the skier must avoid shocks against rocks and other hard objects.

Always ski in control and stay within your ability.

Chose slopes and conditions for skiing carefully.

Follow posted warnings and instructions at the ski area.

Do not ski alone or when you are tired.

Do not ski while under the influence of alcohol or drugs.

Familiarize yourself with slopes and possible obstructions before skiing.

Take lessons from a qualified professional to improve your skills.

Remove snow and dirt clinging to your skis, boots and bindings before stepping in.

Make sure that your clothing does not affect to the ski binding system or skis.

Each country could use different ski safety rules of conduct. The customer must inform himself/herself about those various codes of conduct. Keep strictly to the regulations that are in force in the ski resort.

FIS responsibility code of conduct in skiing:

1. Respect for others. A skier must behave in such a way that he does not endanger or prejudice others.
2. Control of speed and skiing. A skier must move in control. He must adapt his speed and manner of skiing to his personal ability and to the prevailing conditions of terrain, snow and weather as well as to the density of traffic.
3. Choice of route. A skier coming from behind must choose his route in such a way that he does not endanger skiers ahead.
4. Overtaking. A skier may overtake another skier above or below and to the right or the left, provided that he leaves enough space for the overtaken skier to make any voluntary or involuntary movement.
5. Entering, starting and moving upwards. A skier entering a marked run, starting again after stopping or moving upwards on the slopes must look up and down the slopes that he can do so without endangering himself or others.
6. Stopping on the piste. Unless absolutely necessary, a skier must avoid stopping on the piste in narrow places or where visibility is restricted. After a fall in such a place, a skier must move clear of the piste as soon as possible.
7. Climbing and descending on foot. A skier either climbing or descending on foot must keep to the side of the piste.
8. Respect for signs and markings. A skier must respect all signs and markings.
9. Assistance. At accidents, every skier is duty-bound to assist.
10. Identification. Every skier and witness, whether a responsible party or not, must exchange names and addresses following an accident.

LIMITED WARRANTY

ELAN warrants to the initial customer that Elan skis are free from defects in materials and workmanship for a period of 2 years from the date of sale to the initial customer.

For rental skis the warranty period is 1 year from the date of initial purchase.

ELAN disclaims all other warranties express or implied.

Customer`s sole remedy under the warranty is limited to the repair or replacement, at ELAN`s sole option, of the product or parts thereof. Customer should return the product or parts and proof of purchase to the place of purchase for warranty service.

THE WARRANTY CLAIM WILL BE ACCEPTED IN CASE:

- The proper warranty claim procedure has been observed.
- The customer submits evidence justifying the claim. Such evidence can be returned product with defect and the invoices indicating the date of the sale to the customer.
- The warranty term (period) has not expired.
- The ELAN's Quality Assurance Department finds out that the defect has not been caused by reasons beyond the producer's liability.

THE WARRANTY SHALL NOT APPLY IF THE CLAIM IS A RESULT OF ONE OF THE FOLLOWING REASONS:

- Damages due to normal wear and tear,
- Minor damages that does not affect function,
- Any damages caused by abuse or improper use (e.g. striking with tails of skis against a hard surface to remove the snow, striking the two skis together, scratches, overstress of skis or using excessive force on skis, improper ski size, improper binding mounting by person, which is not certified ELAN ski mechanic, shocks with skis against rocks, shocks with the ski`s tip against hard objects, any other impact caused by sharp items, due to torsion, compression, a fall or an abnormal impact...),
- Any damages caused by improper care or storage (e.g. improper storage, improper transportation, improper maintenance, no regular servicing, repairing and tuning skis at certified ELAN ski mechanic, previous repair by person, which is not certified ELAN ski mechanic, modification of the product…)
- Any damages due to non-observance of the instructions or restrictions for use of the products and for its maintenance as defined in product manual.

LIMITATION OF LIABILITY

Your sole remedy under the Limited Warranty shall be limited to the repair or replacement, at ELAN`s sole option, of the product or parts thereof. In no event shall ELAN (or its agents, distributors) be liable for any direct (incidental) or indirect (consequential) damages, or for any cost of transporting or shipping the product, whether the claim is based upon contract, warranty, negligence or product liability, including, without limitation, loss to property, loss of use of the ski or other property, or other economic losses. Neither ELAN nor any distributor or agent shall be liable for contribution or indemnification, whatever the cause. This warranty may not be assigned or transferred.

Some countries do not allow limitations or exclusion on warranties or on certain damages or remedies, so the above exclusions and limitations may not apply to you.

This limited warranty gives you specific legal rights, and you may also have other rights which vary in different countries.

TECHNICAL MANUAL BINDINGS 2015/16

The unique positioning of ELAN bindings in terms of proper function has also been recognized by the independent TÜV Product Service Institute:

Manufacturer: HTM Sport GmbH
A-2320 Schwechat, Tyroliaplatz 1
Telefon +43-1-701 79-0, Fax +43-1-701 79-334
www.tyrolia.com

News 2015/16

FREEFLEX EVO

Freeflex EVO race bindings are a r**EVO**lution in ski racing right from the start to the finish line – Evolutionary perfection in which our athletes instill their trust to reach their goals, glorious moments and outstanding results.
Freeflex EVO reduces the impact on the natural ski flex to a minimum. Decreased forward pressure, completely redesigned roller pincer systems and wings, plus an intelligent gliding element all add up to the rEVOlution of racing: fastest time, from the starting gate to the finish line with Freeflex EVO.

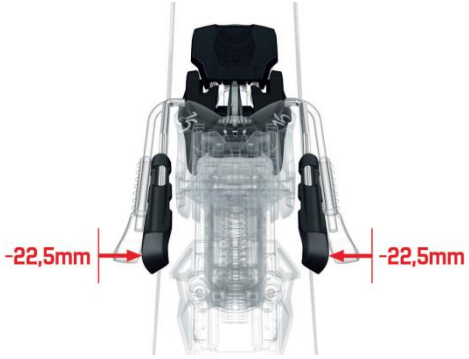
The new construction of the roller pincer system and its wings guarantee utmost stability. The newly designed wings overlap better with the ski boot interface – the innovative concept includes longer wings and is closer to the ski boot. Therefore, the ski boot is stable and fixed in the binding with less forward pressure.
The synchronal adjustment of the wings provides precise adjustment to ski boot sole heights, preventing wobbling between binding and boot. Simultaneously, the horizontal stability is increased to avoid accidental release at high backward lean forces on difficult World Cup slopes.

But that's not all!
For the real revolution in race bindings, where was developed an intelligent Race AFD gliding element which moves together with the ski flex enabling constant contact between boot and binding in all flex situations.
Improved ski control and direct power transmission without wobbling between boot and binding guarantee precise ski steering, exact trigger, minimal response time resulting in the fastest runs for our World Cup Riders.

The new metal cage of the toe is certainly eye-catching but also provides increased stability. Improved Mx steadiness was also achieved by the new design of the wings and the innovative AFD element. The narrower construction enables better angulations before snow contact and allows extreme turns. What do our racers think? – They are excited! The next World Cup winter season can get started – we are ready!

POWER BRAKE 2

As true leaders, we do not look back celebrating the successes of the past.
Therefore we keep on improving, thinking ahead, innovating – the result: Power Brake².
Brake arm claws touching the snow while skiing?
Brake arm claws stopping the perfect backwards landing?
Power Brake² retracts completely to the heel housing with 22,5 mm better retraction.
As well, brake widths for categories [A], [B], [D] and [F] were standardized: **85/95/110/130/150 mm**.



Furthermore, the new Power Brake² is fully compatible with existing binding models to turn them into dream racing machines.

ATTACK 18X

For optimal backcountry performance, powder skiing or park& pipe action the new Attack 18X is equipped with Magnesium wings for more solidity and stability. With the specific AAA construction the binding is 160g lighter than the previous Peak 18X binding. What limits you to make even more turns? Certainly not the binding.

ELAN ATTACK 18X

Stand Height:	17 mm
DIN:	8 - 18
Boots:	Alpine-Norm
Weight:	2080 g (*2380 g)
Features:	FR Pro Toe with Magnesium, AFD Metal, Race Pro Heel, Dura Coated

ATTACK 11

Also NEW in the Attack binding family is the Attack 11 with the innovative SX Freeski Heel, constructed with the needs of young freeskiers and freestylers in mind.

ELAN ATTACK 11

Stand Height:	21 mm
DIN:	3 - 11
Boots:	Alpine-Norm
Weight:	1360 g (*1660 g)
Features:	FR Pro Toe, AFD Metal, SX Heel, Dura Coated, Solid Colored

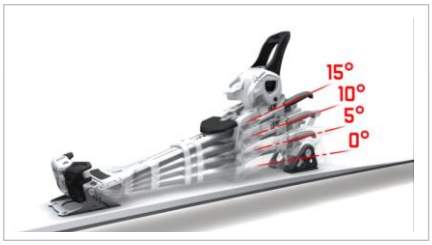
THE TOURING BINDING

The ELAN Ambition Alpine Touring binding is the perfect companion for all Alpine Touring Aficionados so that no terrain remains unattainable. We included every attribute of our high-performance alpine ski bindings in this brand new Alpine Touring binding.

ALPINE TOURING HEEL AND CLIMBING AID:

The newly designed climbing aid is positioned as close as possible to the Alpine Touring (AT) Heel. This provides better walking balance and effortless climbing in all situations. The low stand height of 38 mm improves stability and offers a confident stance. With four different climbing aid positions (climbing in a 0°, 5°, 10° or 15° position) it is possible to adapt on different terrains without stepping out of the binding.

It does not matter if it is a walk through flat terrain or a steep slope up to the summit. Simply use the ski pole in order to change the climbing aid position and also to lock for the downhill ride.



BRAKES & INDIVIDUALITY:

Considering the different ski widths, the ELAN AMBITION comes without brakes. This gives you the opportunity to either choose the perfect fitting brake out of four different widths (85 mm/ 95 mm/ 105 mm/125 mm) or simply to ride and hike without brakes using appropriate powder straps.

AMBITION Brakes:

85 mm Art. No. 163003 (1 Pair)
95 mm Art. No. 163016 (1 Pair)
105 mm Art. No. 163004 (1 Pair)
125 mm Art. No.:163005 (1 Pair)

DEMO AND RENTAL SUITABLE:

In order to offer ambitious sportsmen an opportunity to widen their horizons, the ELAN AMBITION is also demo and rental suitable.

Combined with a spare demo track (Art. No. 163001 AMBITION Demo Track-1 Pair), this brand new ELAN binding can be tested and shown to a broad audience.

Only two easy adjustments (one on the telescopic tube and one on the demo track) are required to fit to different boot lengths without extra drilling.

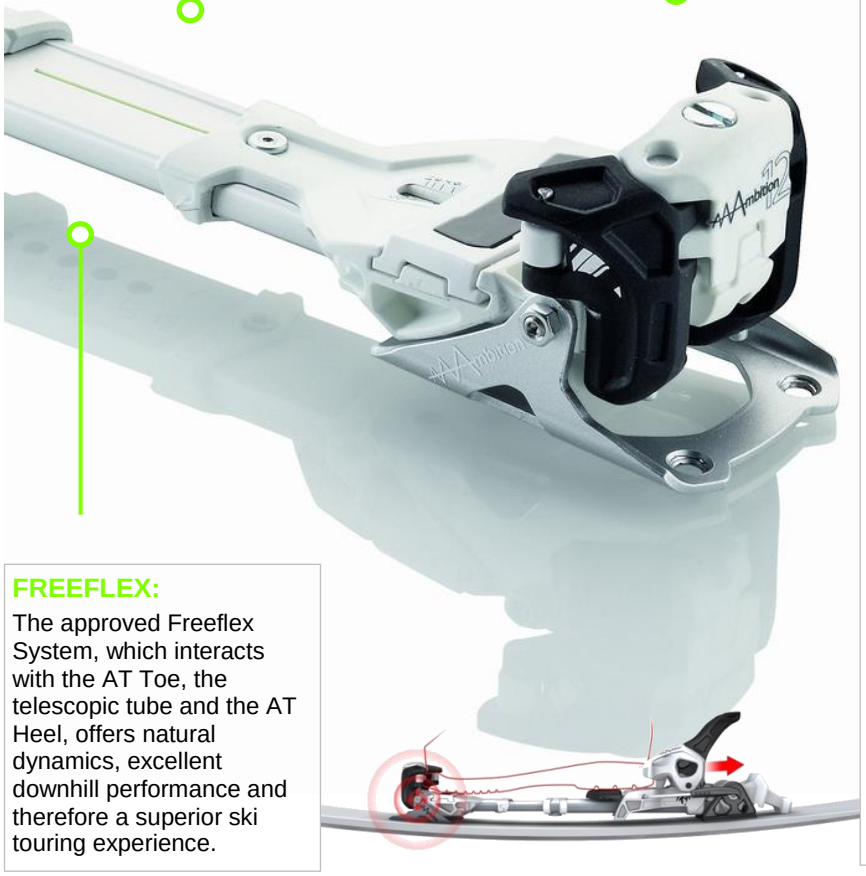
AAA-Series Powder Strap Art. No. 162981 (1 Pair)

AAA-Series Powder Cord Art. No. 163025 (1 Pair)

ONE-FOR-ALL EASY ADJUSTABLE TELESCOPIC TUBE:

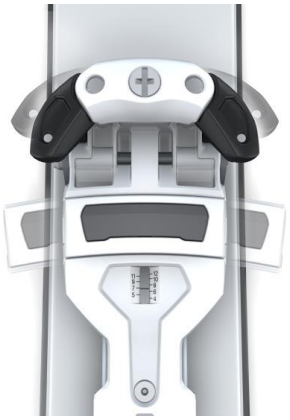
Additionally the AMBITION features a unique light-weight telescopic tube which offers an easy adjustment opportunity to different boot sole lengths. Thus, with only one binding model it is possible to cover the entire range of different sole lengths – from 260 mm up to 350 mm.

Furthermore, with the setting of the telescopic tube and through the compact mounting, perfect binding positioning on your skis is improved and midpoint deviation is avoided.



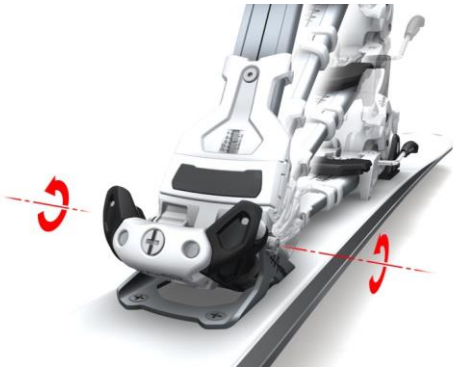
FREEFLEX:

The approved Freeflex System, which interacts with the AT Toe, the telescopic tube and the AT Heel, offers natural dynamics, excellent downhill performance and therefore a superior ski touring experience.



ALPINE TOURING TOE:

This newcomer in the ski touring segment features the exclusive ELAN Alpine Touring (AT) Toe which can be easily adjusted to alpine and touring boot norms. A 5 mm wide mechanical AFS gliding element secures constant release values also with rubber soles. In combination with two rollers this binding provides superior safety features with the rapid and exact boot re-centering that skiers expect from ELAN.

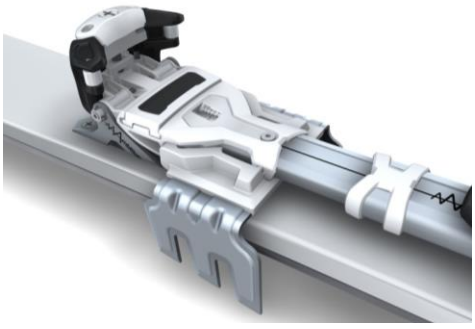


As a result of its harmonious design, the ELAN AMBITION has a wider contact area which improves stability and provides a secure foundation for every skiing situation. Furthermore, its pivot is efficiently positioned right below the ski boot tip to ensure perfect force transmission and a tilt up to 90 degrees.

CRAMPONS:

Additional crampons are available as spare parts in widths of 90 mm, 105 mm and 120 mm, and provide safe climbing and a secure stand in any situation.

90 mm: Art. No. 163006 (1 Pair)
105 mm: Art. No. 163007 (1 Pair)
120 mm: Art. No. 163008 (1 Pair)



THE PERFECT ALL-ROUNDER

With the ADRENALIN Freeride binding from ELAN, no terrain is out of reach. This binding provides a level of skiing performance never before seen in an alpine binding. It combines performance driven freeride features with the ultimate ergonomic walking mechanism for maximum freedom on-and off-piste. Overcome boundaries smoothly for a perfect ride.

ALPINE TOURING HEEL AND CLIMBING AID:

With the new ADRENALIN Freeride binding from ELAN, no terrain is out of reach. This binding provides a level of skiing performance never before seen in an alpine binding. It combines performance driven freeride features with the ultimate ergonomic walking mechanism for maximum freedom on-and off-piste. Overcome boundaries smoothly for a perfect ride.

Another feature is the possibility to walk in the 0° position. After release, ELAN's climbing aid can easily be operated with a ski pole and it can be positioned in three different angles (0°, 7° and 13°) for an optimal walking position. This improves balance and a secure stand on your way to perfect skiing spots. The climbing aid is also available as a spare part (Art. No. 162982).

BRAKES & INDIVIDUALITY:

The ADRENALIN comes without brakes. This gives each freerider the chance to choose the precise fitting brakes in regard to the ski widths. The ADRENALIN 13 can be combined with brake widths of 85 mm, 95 mm, 110 mm or 130 mm.

Brakes with a width of 95 mm, 110 mm or 130 mm can be installed on the ADRENALIN 13. To find the right brake to your ADRENALIN have a look to the Brake line

SPARE PART:

AAA-Series Powder Strap Art. No. 162981 (1 Pair)

AAA-Series Powder Cord Art. No. 163025 (1 Pair)

FREEFLEX:

The platform of ELAN's ADRENALIN binding provides the approved Freeflex function which allows the ski to flex as it is designed to do so it can retain its natural dynamics. Freeflex is enabled by the free gliding plate that runs within the titanal heel track and is supported by the center of rotation of the binding toe.

FREERIDE (FR) PRO HEEL:

The ultra-wide 80mm heel track makes all the performance difference needed to take this product over the top. Extra width and the superior kinematics of high performance bindings make it absolutely stable and reliable for perfect force transmission and unmatched performance. The heel can easily be adjusted to different boot sole lengths without any additional tools.

It covers a wide range of seven ski boot sizes.

The ADRENALIN freeride binding is available in two lengths:

SHORT (S) for ski boot sole length of 270 – 330 mm

LONG (L) for ski boot sole length of 300 – 360 mm

FREEFLEX:

The platform of ADRENALIN binding provides the approved Freeflex function which allows the ski to flex as it is designed to do so it can retain its natural dynamics. Freeflex is enabled by the free gliding plate that runs within the titanal heel track and is supported by the center of rotation of the binding toe.

FREERIDE (FR) PRO TOE:

The ADRENALIN comes with the Freeride (FR) Pro Toe with its ergonomic pivot position for optimal tilt up movement up to 90 degrees. This system provides effortless walking over short distances. The FR Pro Toe is adjustable by changing the position of the Anti-Friction-Slider (AFS Metal) to cover alpine and touring boot norms. The AFS-metal FR PRO Slider is available as a spare part Art. No. 162984..

This 68 mm wide slider plus a stainless steel gliding element provides constant release values and result in a broader contact area to the ski boot sole.

The benefits: more stability, more direct power transmission and an ultimate skiing performance.

CRAMPONS:

Additional crampons are available as spare parts in widths of 90 mm, 105 mm and 120 mm, and provide safe climbing and a secure stand in any situation.

90 mm: Art. No. 162977 (1 Pair)
105 mm: Art. No. 162978 (1 Pair)
120 mm: Art. No. 162979 (1 Pair)

ASTONISHING PARK & PIPE ACTION

The ATTACK binding, designed for freeskiers, captivates with its minimalistic design, and combines perfect light-weight control and versatile usage in one masterpiece. With this new freeski binding you can enjoy park or half pipe just as high performance off-piste skiing. A perfect tool for all-around skiers who are willing to attack!

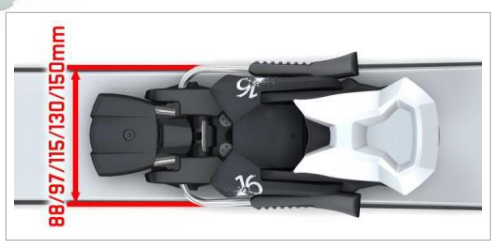
Get ready for park, half pipe & on-and off-piste with the ELAN ATTACK binding models.

MODERN ARCHITECTURE:

The special Freeride (FR) Pro Toe with its horizontal spring reflects the modern architecture of the new ELAN AAA-Series. Furthermore, it includes a super secure 77 mm metal Anti-Friction-Device (AFD Metal), which can be adjusted for all types of alpine boots (Type A only). The ATTACK 16 features the ELAN Race Pro Heel, with a reduced stand height of only 17 mm for the ultimate freeski adventure.

PERFECT INDIVIDUALITY:

The built in AAA-Series technology ensures high quality and perfect usability. In regard to its clear design and its compact measurement, the ATTACK model can be ideally used on ski widths from 80 mm and wider.



Some models are delivered without brakes. This gives riders the opportunity to customize the setup to their needs. Brakes are available in different widths: 85 mm, 95 mm, 110 mm, 130 mm and 150 mm. Find Art. No. of all brakes on page 33 at ELAN brake line overview.

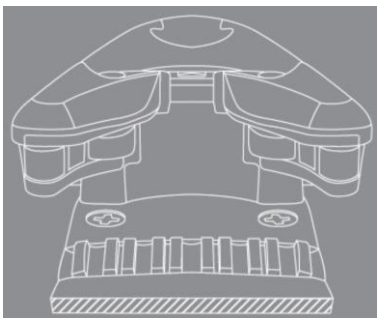
DEMO & RENTAL SUITABLE - ATTACK 13 DEMO

The ELAN Attack 13 DEMO model, a modified version of the ELAN Freeski binding, is the first demo and rental suitable freeski binding that is anchored on a metal toe track. This unique feature ensures a lower stand height, a more compact design and increased stability compared with other bindings. In combination with the proven ELAN Rental Heel track, the Attack 13 DEMO offers the opportunity to fulfill every customer's desires, whether for retail, demo or rental purposes.

This easy to adapt ELAN Attack Freeski binding model was designed for a wide range of sole lengths, and therefore can be adjusted to all available alpine boot sole lengths from 259 to 386 mm – tool-free in a matter of a few seconds, by moving the toe and heel pieces.

Safety Features

TRP TOE SYSTEM



SAFETY

The 4-Roller Pincer System remains flexible at all times, absorbing short impact peaks on ligaments and automatically re-centering the boot. Perfect 180° release action allows up to 30% higher retention force without compromising on safety.

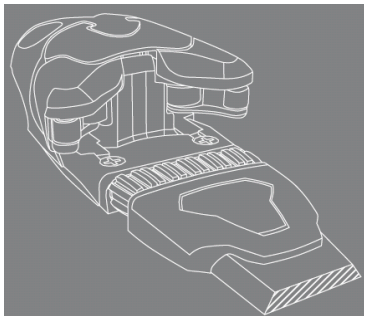
CONVENIENCE

Self-cleaning design and maintenance-free.

PERFORMANCE

Positive power transmission, perfect power link between boot and binding (30% better centering accuracy than conventional cams).

ABS SYSTEM



SAFETY

Release without any friction significantly reduces strain on ligaments in forward twisting falls. Perfect release regardless of temperature, boot-wear, icing-up, or dirt on the binding.

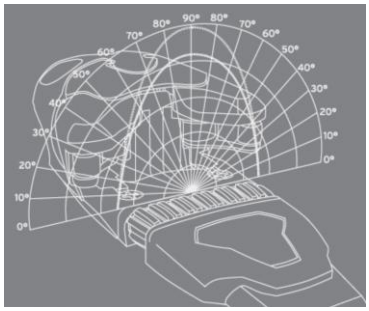
CONVENIENCE

Self-cleaning design and maintenance-free.

PERFORMANCE

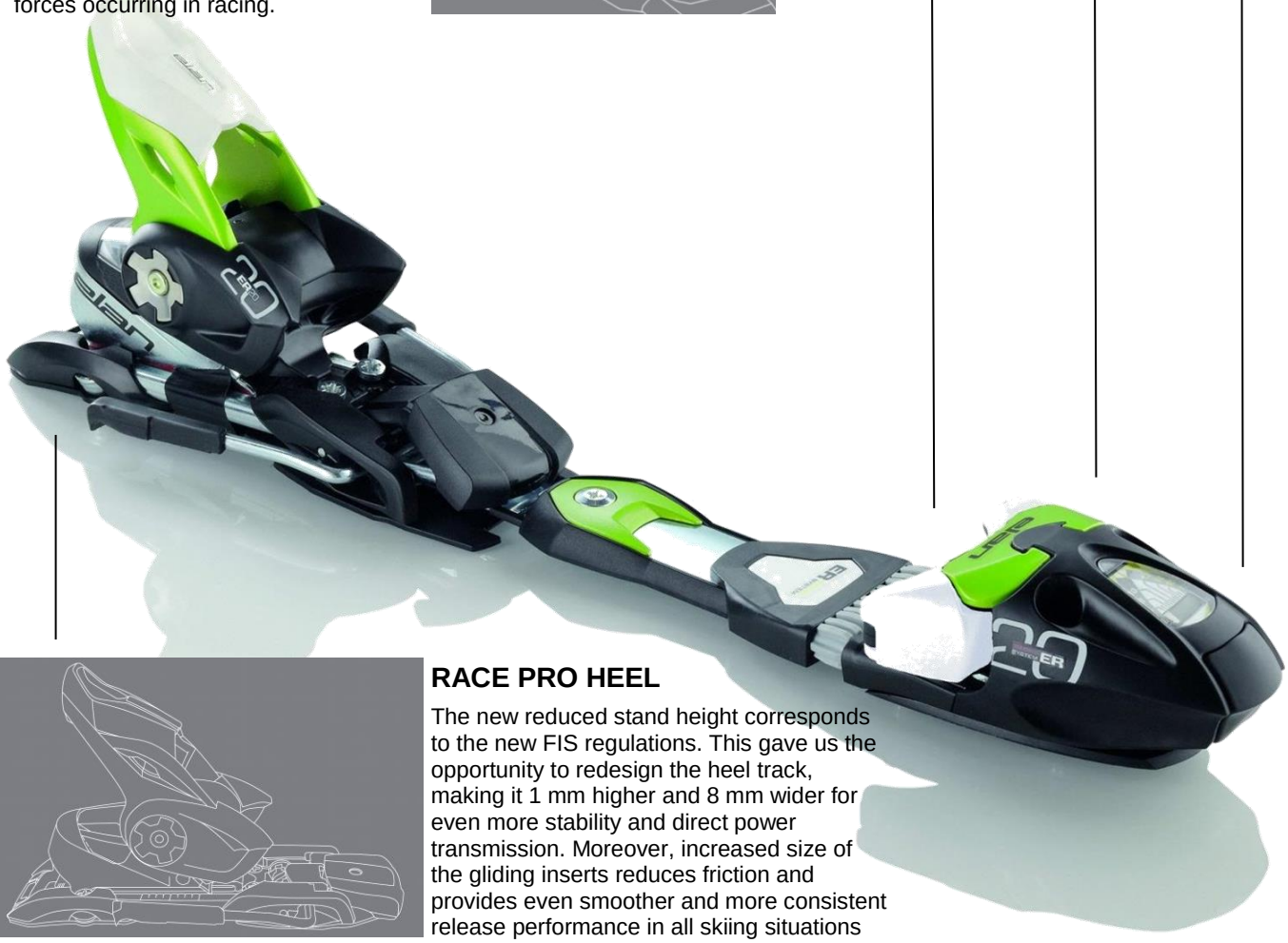
Best results in independent safety testing and awarded with the TÜV high quality mark.

DIAGONAL TOE



Full Diagonal Toes feature 180° release action from horizontal to vertical. Maximum safety in backward twisting-fall situations.

Race Diagonal Toes are tuned for racing purposes. Due to higher release force vertically than horizontally, it holds up to the high backward lean forces occurring in racing.



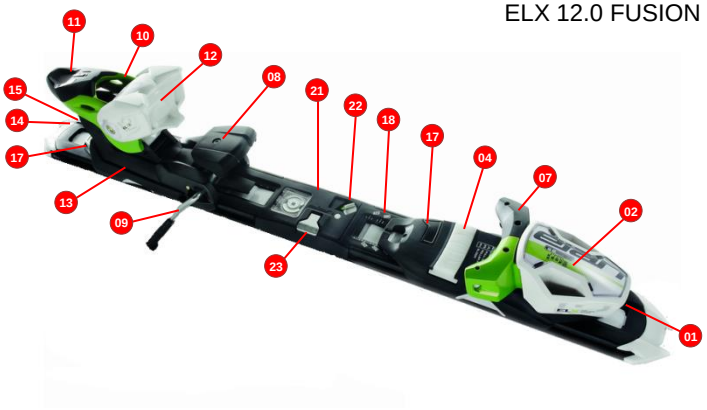
RACE PRO HEEL

The new reduced stand height corresponds to the new FIS regulations. This gave us the opportunity to redesign the heel track, making it 1 mm higher and 8 mm wider for even more stability and direct power transmission. Moreover, increased size of the gliding inserts reduces friction and provides even smoother and more consistent release performance in all skiing situations

Parts-Reference Chart RETAIL

ER 16.0 FreeFlex PRO

ELX 12.0 FUSION



EFS 10.0

ELW 9.0 QUICKTRICK

EL 4.5

TOE PIECE

1. Adjustment screw
2. Visual indicator
3. ABS
4. AFS
5. AFD-Teflon
6. Toe cover
7. Wings

HEEL PIECE

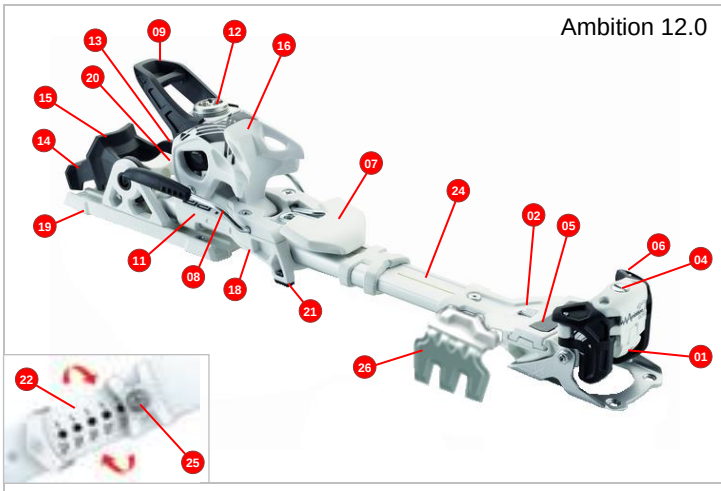
8. Brake pedal
9. Brake arms
10. Heel lever
11. Heel cover
12. Sole lug
13. Heel housing
14. Adjustment screw
15. Visual indicator

MID PARTS

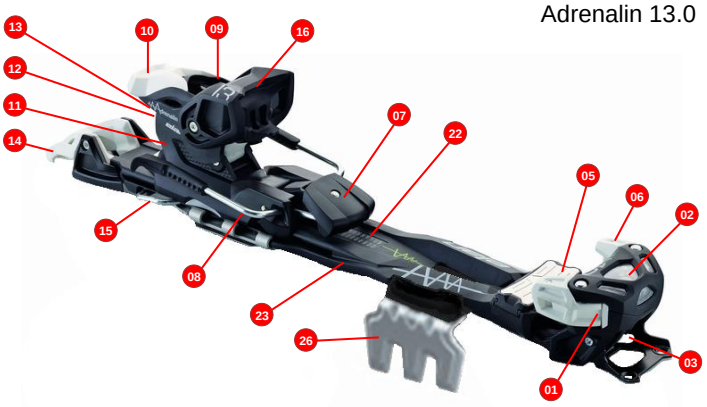
16. FREEFLEX PRO
17. FUSION lever
18. FUSION scale
19. QuickTrick lever
20. QuickTrick scale
21. FUSION central locking system
22. FUSION safety lever
23. FUSION locking lever

Parts-Reference Chart AAA-SERIES

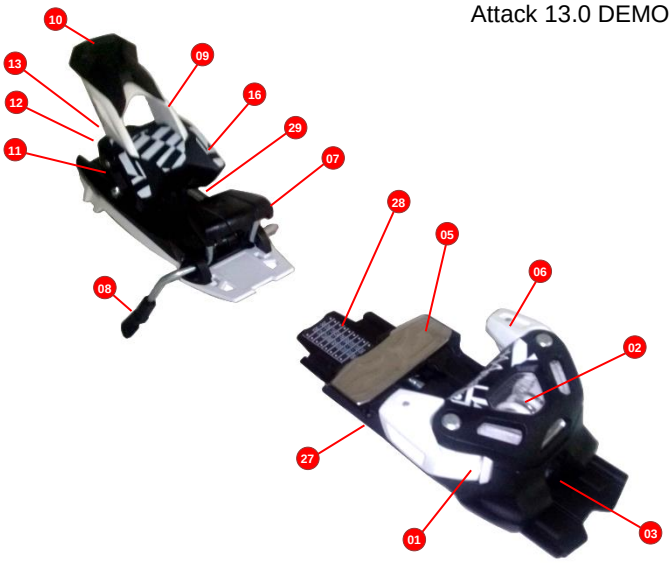
Ambition 12.0



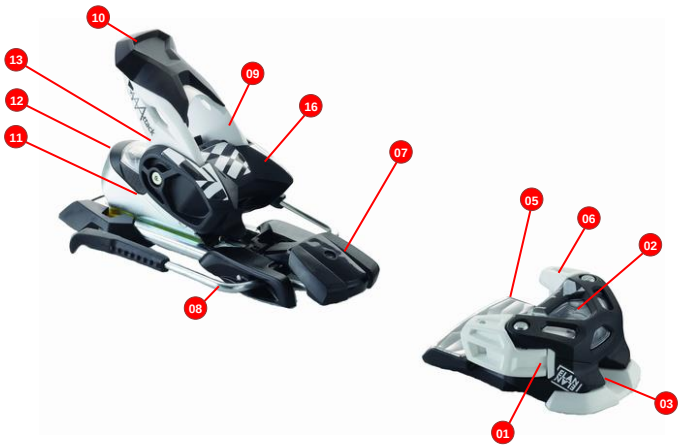
Adrenalin 13.0



Attack 13.0 DEMO



Attack 18.0 X



TOE PIECE

1. Adjustment screw
2. Visual indicator
3. Adjustment screw - AFS / AFD
4. Adjustment screw - sole height
5. AFS / AFD
6. Wings

DEMO

27. Toe lever
28. Attack Demo scale

HEEL PIECE

7. Brake pedal
8. Brake arms
9. Heel lever
10. Heel cover
11. Heel housing
12. Adjustment screw
13. Visual indicator
14. Ascender lock
15. Climbing aid
16. Sole lug
17. Heel adjustment lever
18. Heel base plate
19. Demo track with fixing screw
20. Length adjustment screw
21. Dampener

DEMO

29. Attack Demo scale

MID PARTS

22. Boot sole length scale
23. Walking platform
24. Telescopic tube
25. Length adjustment screw
26. Crampon

Data - Binding Line Retail 2015/16

Model	Z-DIN	kg	lbs	Feature	Toe AFD	Toe Stand Height	Toe system	Toe type
COMPETITION								
ER 20.0 (x) FREEFLEX EVO	10–20	from 97	from 209	FREEFLEX PRO	RACE AFD	12.5	-	RACE
ER 16.0 (x) FREEFLEX EVO	8–16	from 79	from 175	FREEFLEX PRO	RACE AFD	12.5	-	RACE
RACE								
ER 17.0 FREEFLEX PRO	6–17	from 58	from 128	FREEFLEX PRO	ABS	14	RACE DIAGONAL	AERO
ER 11.0 FREEFLEX PRO	3–11	from 31	from 67	FREEFLEX PRO	ABS	14	FULL DIAGONAL	LX
ER 11.0	3–11	from 31	from 67	—	ABS	18	FULL DIAGONAL	LX
FUSION								
ELX 14.0 FUSION	4–14	from 42	from 92	FUSION	ABS	27	FULL DIAGONAL	LX
ELX 12.0 FUSION	3.5–12	from 36	from 79	FUSION	ABS	27	FULL DIAGONAL	LX
ELX 12.0 FUSION WB 95	3.5–12	from 36	from 79	FUSION	ABS	27	FULL DIAGONAL	LX
ELX 11.0 FUSION	3–11	from 31	from 67	FUSION	AFS	27	FULL DIAGONAL	SX
ELW 11.0 FUSION (Lady)	3–11	from 31	from 67	FUSION	AFS	27	FULL DIAGONAL	SX
EL 11.0 FUSION	3–11	from 31	from 67	FUSION	AFS	27	FULL DIAGONAL	SX
EL 10.0 FUSION	3–10	from 31	from 67	FUSION	AFS	27	FULL DIAGONAL	SX
QuickTrick (QT)								
EL 11.0 QT	3–11	from 31	from 67	QT	AFS	26	FULL DIAGONAL	EL
EL 10.0 QT	3–10	from 31	from 67	QT	AFS	26	FULL DIAGONAL	EL
EL 10.0 QT WB 90	3–10	from 31	from 67	QT	AFS	26	FULL DIAGONAL	EL
ELW 9.0 QT (Lady)	2.5–9	from 26	from 57	QT JUNIOR	AFS	25	FULL DIAGONAL	EL-JUNIOR
ELW 9.0 QT WB 90 (Lady)	2.5–9	from 26	from 57	QT JUNIOR	AFS	25	FULL DIAGONAL	EL-JUNIOR
QuickTrick (QT) JUNIOR								
EL 7.5 AC QT	2–7.5	22-84	48-187	QT JUNIOR	AFS Jr.	23	FULL DIAGONAL	SX Junior
EL 7.5 AC QT WB 90	2–7.5	22-84	48-187	QT JUNIOR	AFS Jr.	23	FULL DIAGONAL	SX Junior
EL 4.5 AC QT	0.75–4.5	10-48	22-105	QT JUNIOR	AFS Jr.	23	FULL DIAGONAL	SX Kid
EL 4.5 AC QT WB 84	0.75–4.5	10-48	22-105	QT JUNIOR	AFS Jr.	23	FULL DIAGONAL	SX Kid
SET								
EFS 10.0 Wide 90	3–10	from 31	from 67	—	TEFLON	12	FULL DIAGONAL	SX
EL 10.0	3–10	from 31	from 67	—	TEFLON	12	FULL DIAGONAL	SX
AAA Series								
ADRENALIN 13 w/o Short	4–13	from 42	from 92	Hiking platform	AFD metal	28.5-35	—	FR PRO
ADRENALIN 13 w/o Long	4–13	from 42	from 92	Hiking platform	AFD metal	28.5-35	—	FR PRO
ATTACK 18 X w/o brake	8-18	from 79	from 175	—	AFD metal	12.0-15.0	—	FR PRO MG
ATTACK 16 w/o brake	5–16	from 49	from 109	—	AFD metal	12.0-15.0	—	FR PRO
ATTACK 13 w/o brake	4–13	from 42	from 92	—	AFD metal	12.0-15.0	—	FR PRO
ATTACK 13 DEMO w/o brake	4–13	from 42	from 92	—	AFD metal	19.0-22.0	—	FR PRO OT
ATTACK 11 w/o brake	3–11	from 31	from 67	—	AFD metal	12.0-15.0	—	FR PRO
AMBITION 12 w/o brake	4–12	from 42	from 92	Telescopic tube	AFS	34.0	—	AT
SET Junior/Kid								
EL 7.5 AC	2–7.5	22-84	48-187	—	TEFLON	12	FULL DIAGONAL	SX Junior
EL 4.5 AC	0.75–4.5	10-48	22-105	—	TEFLON	12	FULL DIAGONAL	SX Kid

Heel stand height	Heel type	Brake type	Brake Code	Ramp angle (mm)	Length adjustment range (mm)	Boot sole length (mm)	Boot sole type	Drill template	Weight set
18	RACE PRO	PB^2 RACE PRO 18-85	A	5.5	32	255-375	ADULT	92 W/FAT	3190 g
18	RACE PRO	PB^2 RACE PRO 18-85	A	5.5	32	255-375	ADULT	92 W/FAT	3190 g
19	RACE PRO	PB^2 RACE PRO 17-85	A	5	32	255-375	ADULT	92 W/FAT	2680 g
21	RACE LITE	PB^2 LD 85	D	7	24	257-372	ADULT	92 W/FAT	2230 g
21	RACE LITE	PB^2 LD 85	D	3.5	24	257-372	ADULT	92 W/FAT	2050 g
35	RACE LITE	Powerrail^2 LD 85	F	7	119	265-384	ADULT	—	1930 g
35	RACE LITE	Powerrail^2 LD 85	F	7	119	265-384	ADULT	—	1930 g
35	RACE LITE	Powerrail^2 LD 95	F	7	119	265-384	ADULT	—	1930 g
35	RACE LITE	Powerrail^2 LD 85	F	5	119	265-384	ADULT	—	1920 g
35	RACE LITE	Powerrail^2 LD 85	F	5	119	265-384	ADULT	—	1920 g
32	EL	Powerrail SL 78	G	5	119	265-384	ADULT	—	1770 g
32	EL	Powerrail SL 78	G	5	119	265-384	ADULT	—	1770 g
31	EL	Powerrail SL 78	G	5	120	265-380	ADULT	—	1770 g
31	EL	Powerrail SL 78	G	5	120	265-380	ADULT	—	1770 g
31	EL	Powerrail SL WB 90	G	5	120	265-380	ADULT	—	1770 g
31	EL LITE	SL Brake LR 78	H	6	84 or 68	M/L or ML	ADULT	—	1490 g
31	EL LITE	SL Brake LR 90	H	6	84 or 68	M/L or ML	ADULT	—	1490 g
28	SX Junior	SL LR 78	H	5	84 or 68	S/M or XSS/SM/ML	A / C	—	1380 g
28	SX Junior	SL LR WB 90	H	5	84 or 68	S/M or XSS/SM/ML	A / C	—	1380 g
28	SX Kid	SX Kid LR 74	I	5	84 or 68	S/M or XSS/SM/ML	A / C	—	1270 g
28	SX Kid	SX Kid LR WB 84	I	5	84 or 68	S/M or XSS/SM/ML	A / C	—	1270 g
21	EL	SL BRAKE WB 90	E	9	32 (-8/+24)	—	ADULT	92 W/FAT	1620 g
21	EL	SL BRAKE 78	E	9	32 (-8/+24)	—	ADULT	92 W/FAT	1620 g
39	FR	Powerrail^2 LD (all width)	F	4-10.5	60	270-330	A / T	Adrenalin	2390 g *
39	FR	Powerrail^2 LD (all width)	F	4-10.5	60	300-360	A / T	Adrenalin	2420 g *
17	RACE PRO	PB^2 RACE PRO (all width)	A	2-5	32	—	ADULT	92 W/FAT	2080 g *
17	RACE PRO	PB^2 RACE PRO (all width)	A	2-5	32	—	ADULT	92 W/FAT	1830 g *
17	RACE	PB^2 RACE PRO (all width)	A	2-5	32	—	ADULT	92 W/FAT	1800 g *
23.0	RACE OT	PB^2 LD (all width)	D	1-4	127	259-386	ADULT	Attack demo	2250 g *
21.0	SX	SL BRAKE FS (all width)	L	6-9	32 (-8/+24)	—	ADULT	92 W/FAT	1360 g *
38	AT	Ambition (all width)	C	4	90 (14)	260-350	A / T	Ambition	1830 g *
21	SX Junior	SL Junior Brake 72	J	9	32 (-8/+24)	—	A / C	92 W/FAT	1400 g
15	SX Kid	SX Kid Brake 74	K	3	32 (-8/+24)	—	A / C	94 W	1190 g

* … Weight without Brake

Ski Boot Norm:
A/C = Adult / Children
A/T = Adult /Touring

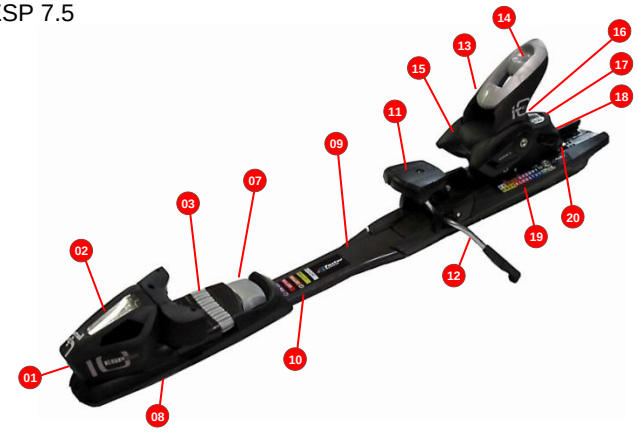
QuickTrick Snap IN scales:
XSS= 195-263 mm
SM= 225-293 mm
ML= 255-323 mm

QuickTrick TMD scales:
S= 199-283 mm
M= 239-323 mm
L= 263-347 mm

Parts-Reference Chart RENTAL

ESP 10.0

ESP 7.5



ESP 4.5

ESR 10.0

TOE PIECE

1. Adjustment screw
2. Visual indicator
3. ABS
4. (Color coded base plate)
5. AFD-Teflon
6. (Toe cover)
7. ONE TOUCH lever
8. Base Plate
9. Bar Code area
10. Single Code scale

HEEL PIECE

11. Brake pedal
12. Brake arms
13. Heel lever
14. Heel cover
15. Sole lug
16. Visual indicator
17. Heel housing
18. Adjustment screw
19. Single Code scale
20. ONE TOUCH lever

Data - Binding Line Rental 2015/16

Model	ESP 10.0 w/o brake	ESP 7.5 AC	ESP 4.5 AC	ESR 10.0
Z-DIN	4-13	1.5–7.5	0,75–4,5	2.5-10
kg/lbs	from 26 kg. from 57 lbs	from 18 to 84 kg from 39 to 187 lbs	from 10 to 48 kg. from 22 to 105 lbs	from 26 kg. from 57 lbs
Toe type	SX OT	SX Junior OT	SX Kid OT	SX
Toe system	Full Diagonal	Full Diagonal	Full Diagonal	Full Diagonal
Standheight Toe	26 mm	26 mm	24 mm	12 mm
AFD	ABS	ABS	AFS Jr.	Teflon
Heel type	RENT OT	RENT OT	SX Kid	RENT OT
Standheight Heel	31 mm	31 mm	25 mm	21 mm
Brake type	NO Brake (Power Brake LD)	Power Brake LD 78	SX Kid Brake 74	Power Brake LD 78
Length adjustment range	263 mm to 391 mm	215 mm to 343 mm	191 mm to 294 mm	263 mm to 351 mm
Set weight	2570 g	2450 g	1630 g	2140 g
Boot sole type	A-adult	A-adult	A-adult / C-children	A-adult
Single Code	A-6	A-T	a-w/F	A-V
Drill template / Adyusment	SP2003 W / yellow bushing	SP 2003 W / white bushing	SP 2003 W red bushing	SR 2003 W / Yellow bushing

ESP 7.5 AC Binding-Track Plates compatibility

New ESP 7.5 AC binding supports both boot norms Adult and Children (ESP 7.5 only Adult norm)! New Track plates have extended boot sole range from 215 to 343 mm compared to the old Track plate (only from 263 to 323) to cover smallest children boot sizes.

Therefore, the combination between the old ESP 7.5 binding and the new Track plate with the scale 215-343mm is NOT allowed!

ESP 7.5 Art. No.: 140348, 140349, 141094, 141164, 141165, 141276, 141277

	OLD: ESP7.5 – DD 83 20 12 000	NEW: ESP7.5 AC – DD832113000; from season 13.14
OLD BSL: **263-343mm**	**OK**	**OK**
NEW BSL: **215-343mm**	**NOT OK!**	**OK**

Rental: SymPro-ESP / SymRent-ESR 15/16

Performance, for a rental binding, is not only what happens on the hill. A key measure of a product's quality is the ease with which a system can be adjusted and maintained throughout the course of many seasons.

THE ELAN'S SHOP FRIENDLY RENTAL DESIGN FEATURES:

- Easy mounting: This means fewer mistakes and reduced set-up time.
- Easy pre-season testing, low drop-out rate. The automatic sole lug design and the precise centering of the toe pincer system mean: fewer correction factors will be needed and less time spent testing.
- The SINGLE CODE system gives you a super-fast option for binding-to-boot adjustment: set the heel length using the special sole length scale. Forward pressure will be right on, first time, every time.
- All models have automatic lug height adjustment which accommodates standard differences in boot sole-height.
- Easy, hand- levered "ONE TOUCH"- set up. One tool adjustment, easy to turn adjustment screw, "easy-in" boot feature.
- Almost maintenance-free, easy to change the AFD, clean and lubricate the heel track.

ELAN made the commitment to offer a comprehensive product and service program.

THE ELAN RENTAL BINDINGS

No single rental binding can ever fulfill all the needs of all types of shops. We therefore offer the following line up of rental/demo models.

SYMPRO:

THE BINDINGS THAT HELP YOUR HIGH PERFORMANCE SKI SET-UP:

ESP 10.0

- Hand lever-adjusted heel (60 mm) and toe (64 mm)
- 7-toe positions
- DIN-ranges from 2.5 up to 13 that accommodate even high level skiers
- Short, lightweight heel track, despite wide adjustment range
- SINGLE CODE: "A-6" for ski boots from 263-391 mm sole length
- Replaceable brake
- Diagonal toe
- Optimal for Carving skis, minimized deviation between ski and boot mounting point

Pict. 01

ESP 7.5 AC
ESP 4.5 AC

A child and junior model, super convenient, "parent-free" operation:

- Automatic toe and heel pieces accept child and adult boot sole dimensions, giving you full utilization of your child/junior ski inventory
- SINGLE CODE
  "a–H" for ski boots from 191-294 mm sole length (SP 4.5 AC) and
  "f–T" for ski boots from 215-343 mm sole length (SP 7.5 AC)
  The Single Code in lowercase letter refers to children's boots, whereas with capital letter to type A boots (Adult)
- „ONE TOUCH" hand lever adjustment for toe and heel
- Replaceable brake
- Diagonal toe.
- For skis, groups G3 & G4
- DIN range 0.75 up to 7.5

SYMRENT:

ESR 10.0

A technically proven workhorse for the discerning skier who rents:

- DIN range of 2.5 up to 10
- Diagonal toe
- Large 84 mm heel adjustment range
- SINGLE CODE "A-V"
- Automatic toe and heel height adjustment
- "ONE TOUCH"- Hand lever adjustment for the heel
- Replaceable brake

Spare Parts Handling (On Line WEB)

Searching for Spare Parts and technical data as simple as possible

The new OMS Spare Part Management (on line WEB access) offers all relevant information about ski bindings, technical data and their (spare) parts at a glance – and just one click away. Extensive information is available via the new OMS spare part system:

Starting with the appropriate drill template right up to screws and spare parts related to a specific binding model; for example different brake types – plus, **all parts can be directly identified by model**. Pictures and colored marks provide simple navigation tools and easy recognition of selected parts

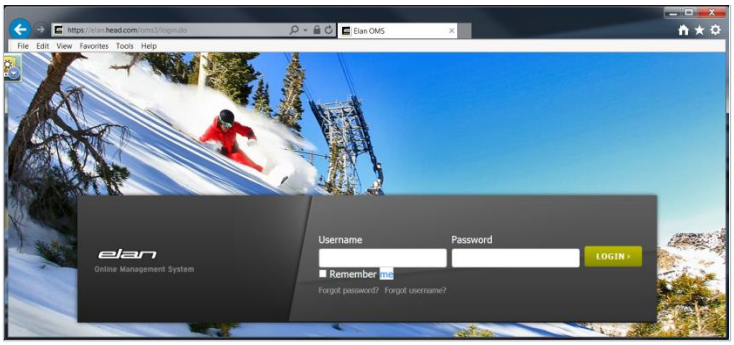
LOGIN

Run your browser, type in address field
http://elan.head.com and you are ready to go…

Pages are protected! To access type:

User name: spare_elan
Password: omsnew

You can download complete User Manual from web page www.elanskis.com under DEALER MEDIA INFO;
http://dealermedialogin.elanskis.com

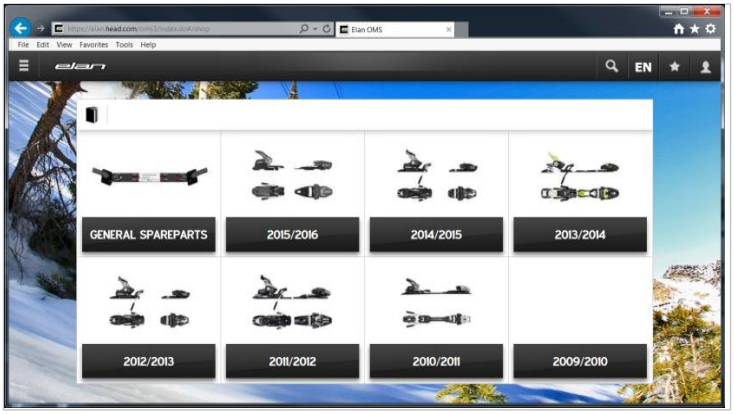


TWO DIFFERENT MODES

You may navigate through the Spare Parts OMS via two different modes:

1. **Product view mode**
2. **Spare Part view mode**

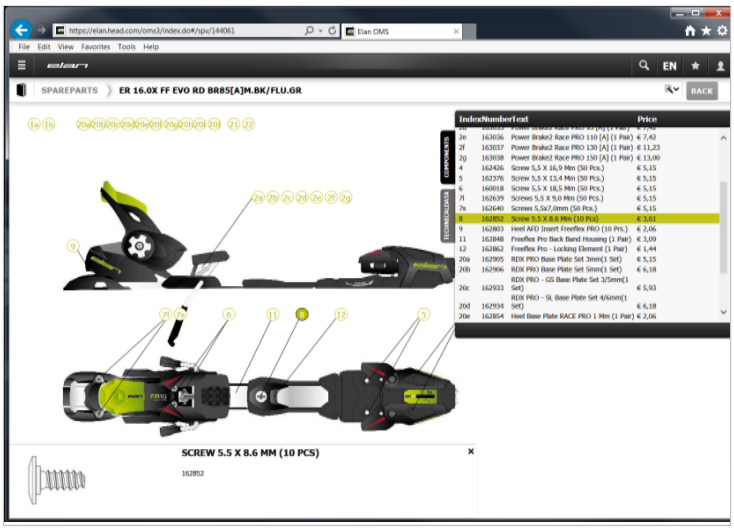
With the product view, all existing spare parts related to a specific binding model can be identified. In the spare part view, all spare parts are listed with their designated use.



SPARE PART VIEWER

The Spare Part Viewer explains all spare parts in detail (text and pictures) and shows the appropriate article number, description and order quantity.

Colored bars and marks of the requested part make navigation extremely simple and easy.



TECHNICAL DATA

In the “product view” mode, technical data is available as additional information. You may access this data by clicking on the spanner symbol . You will find this symbol in the spreadsheet between the picture preview symbol and the symbol which opens the spare part viewer (the toothed wheel symbol). You can access the technical data sheet of one specific binding model, or open the technical data catalogue for all models per line and season.

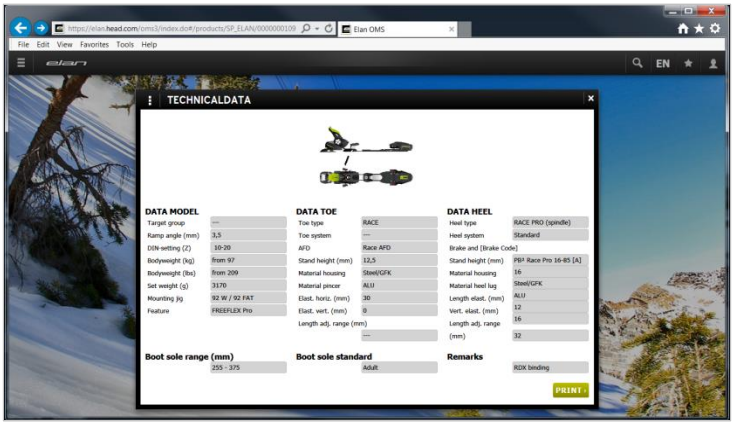
Technical Data for all ELAN lines from season 2009/2010 up to the current line is available online.

ONLINE HELP

A HELP Document is also available online. You will find it in the OMS in the top right corner.

ORDERING:

Simple fill the standard order form! Some parts as screws are not included in that form therefore additional blank copy of the form is available on WEB! Just fill 6 digits numbers (Art. Nr.) and desiderate quantity.



ELAN Brake Line 2015/16

- **POWER BRAKE2 for (A), (B), (D) and (F)**
- **Standardization of brake group (E) and (J)**
- **Identification and Naming system**
- **w/o brake binding models**

1. Power Brake² for [A], [B], [D] and [F]

The new Power Brake² with a better retraction up to 30 mm in comparison to former brakes has been introduced. The new brake retracts completely to the heel housing. Therefore the amount of brake models in PB segments [A], [B], [D] and [F] due to new width split – 85/95/110/130/150 mm – have been reduced from 26 to 19 models. Power Brake² feature a fully compatibility – new brakes match with old bindings and old brakes match with new bindings.

2. STANDARDIZATION OF BRAKE GROUP [E] AND [J]

A standardization of the former Brake group [E] and [J] was made. That means, these 2 groups will be combined in the new group [E], [J] in the first step and after existing stock is delivered the [E] will be deleted completely from our brake line (running change).

Following changes are already done:

- No further production of all brakes in group [E]
- 2 new Brakes in group [J] with width of 100mm (163067) and 115mm (163068) will be added
- 162764 SL Junior Brake 72 [J] was replaced by the 163058 SL Junior Brake 78 [J]
- **Adaption of the name:**
  - "Junior" will be deleted from the name
  - New group- name will be "SL Brake XX [E], [J]"
- New sticker for [E] or [J] brakes

Brake code	Old		Period of transition		Final	
	Art. No.	Brake name	Art. No.	Brake name	Art. No.	Brake name
E	162642	SL Brake 78 (E)	-	-	-	-
	162755	SL Brake 90 (E)	-	-	-	-
	163017	SL Brake 100 (E)	-	-	-	-
	162929	SL Brake 115 (E)	-	-	-	-
J	163058	SL Junior Brake 78 (J)	163058	SL Brake 78 (E), (J)	163058	SL Brake 78 (J)
	162776	SL Junior Brake 90 (J)	162776	SL Brake 90 (E), (J)	162776	SL Brake 90 (J)
	-	-	163067	SL Brake 100 (E), (J)	163067	SL Brake 100 (J)
	-	-	163068	SL Brake 115 (E), (J)	163068	SL Brake 115 (J)

3. IDENTIFICATION AND NAMING SYSTEM

To make the brake–binding allocation than as in the past, we implemented the color coding system in 2013/14. In addition to the standard product labels of the spare brakes, a color-letter code is affixed on the brake boxes (single and master packaging), as you can see in the pictures to determine below. All bindings packaged without brakes come with a similar sticker. It is clear and quickly visible which brakes match with the binding E. i.: For a binding with a red sticker [A], the dealer just has to look for a brake with a red sticker [A] in the proper width. The segmentation and color coding system can be found in the ELAN brake line 2015/16 on the next page.

Color-letter-code sticker for spare brakes and bindings

Color-letter-code sticker on new packaging of the spare brakes

Color-letter-code sticker on all bindings without brakes (w/o brake)

Also the nomenclature of all brakes is standardized and includes all basic information. These nomenclatures consist of a clear name, a number, what defines the maximum ski width at the mounting point and a letter, what specifies the brake cluster.

4. W/O BRAKE BINDING MODELS

ELAN is offering some binding models without brakes, (marked "w/o brake") to avoid brake exchanges later on and to provide suitable brakes for different ski widths. For these models you need to order appropriate brakes separately. Please find all available spare brakes in the ELAN brake line overview on the next page.

Color Code	ELAN BINDING MODELS	Art. No.	Sales Code	BRAKE MODEL / WIDTH
A	ER 20.0 (X) Free Flex Pro RD STIFF	163032	DF163032000	Power Brake² Race PRO 16-85 [A]
	ER 16.0 (X) Free Flex Pro RD STIFF	163033	DF163033000	Power Brake² Race PRO 17-85 [A]
	ER 17.0 FreeFlex Pro	163034	DF163034000	Power Brake² Race PRO 18-85 [A]
	ATTACK 18	163035	DF163035000	Power Brake² Race PRO 95 [A]
	ATTACK 16	163036	DF163036000	Power Brake² Race PRO 110 [A]
	ATTACK 13	163037	DF163037000	Power Brake² Race PRO 130 [A]
		163038	DF163038000	Power Brake² Race PRO 150 [A]
B	(ADRENALIN 16)*	163040	DF163040000	Power Brake² FR PRO 95 [B]
		163041	DF163041000	Power Brake² FR PRO 110 [B]
		163042	DF163042000	Power Brake² FR PRO 130 [B]
C	AMBITION 12	163003	DF163003000	BRAKE AMBITION 85 (C)
	(AMBITION 10)*	163016	DF163016000	BRAKE AMBITION 95 (C)
		163004	DF163004000	BRAKE AMBITION 105 (C)
		163005	DF163005000	BRAKE AMBITION 125 (C)
D	ER 11.0 FreeFlex Pro	163044	DF163044000	Power Brake² LD 85 [D]
	ER 11.0	163045	DF163045000	Power Brake² LD 95 [D]
	ESP 10.0	163046	DF163046000	Power Brake² LD 110 [D]
	ESP 7.5 AC	163047	DF163047000	Power Brake² LD 130 [D]
	ESR 10.0	163048	DF163048000	Power Brake² LD 150 [D]
	Attack 13.0 DEMO			
E				
F	ADRENALIN 13	163050	DF163050000	Powerrail Brake² LD 85 [F]
	ELX 14.0 Fusion	163051	DF163051000	Powerrail Brake² LD 95 [F]
	ELX 12.0 Fusion	163052	DF163052000	Powerrail Brake² LD 110 [F]
	ELX 11.0 Fusion	163053	DF163053000	Powerrail Brake² LD 130 [F]
	ELW 11.0 Fusion			
G	EL 11.0 Fusion	162943	DF162943000	POWERRAIL BRAKE SL 78 (G)
	EL 10.0 Fusion	162944	DF162944000	POWERRAIL BRAKE SL 90 (G)
	ELW 10.0 Fusion	162985	DF162985000	POWERRAIL BRAKE SL 115 (G)
	EL 10.0 QUICK TRICK			
H	ELW 9.0 QUICK TRICK	162942	DF162942000	SL BRAKE LR 78 (H)
	EL 7.5 AC QUICK TRICK	162949	DF162949000	SL BRAKE LR 90 (H)
I	EL 4.5 AC QUICK TRICK	162966	SP162966000	SX KID BRAKE LR 74 (I)
		162967	SP162967000	SX KID BRAKE LR 84 (I)
J	EFS 10.0	163058	DF163058000	SL Brake 78 (E), (J)
	EL 10.0	162776	DF162776000	SL Brake 90 (E), (J)
	EL 7.5 AC	163067	DF163067000	SL Brake 100 (E), (J)
		163068	DF163068000	SL Brake 115 (E), (J)
K	EL 4.5 AC	162965	SP162965000	SX KID BRAKE 74 (K)
	ESP 4.5 AC	162964	SP162964000	SX KID BRAKE 84 (K)
L	ATTACK 11	163027	DF163027000	SL Brake FS 78 [L]
		163028	DF163028000	SL Brake FS 90 [L]
		163029	DF163029000	SL Brake FS 100 [L]
		163030	DF163030000	SL Brake FS 115 [L]

***** … Not in collection 15/16

Workshop Tools & Aids

To make your work easier, ELAN provides a variety of workshop tools and aids. Find the whole product range below. Furthermore ELAN offers different templates for all available ski bindings. Find the overview of the drill template selection 2015/16 on next pages. Referring to this overview you are able to determine easily which template should be used with which binding.
For earlier lines, refer to the corresponding Technical Manuals or use the Online Spare Parts OMS to search for specific information.

Picture	Item	Packed	Art. No
	• Drill Template Adapter-Set (adapter for Templates)	per piece	162569
	• Drill Ø 4.1 x 7.0 mm long • Drill Ø 4.1 x 9.0 mm long • Drill Ø 3.5 x 7.0 mm long • Drill Ø 3.5 x 9.0 mm long • Drill-set complete	per piece per piece per piece per piece per set	162772 162773 162770 162771 162774
 	• Screwdriver flat per piece • Screwdriver incl. Pozidrive #3 Bit (160805) • Handy Ratchet incl. bits (162575 + 162576) • Slotted Screw Bit for Handy Ratchet • Pozidrive #3 Bit for Handy Ratchet • Pozidrive #3 Bit for Screwdriver 162800 and electric drivers hexagon. 1/4” (6.35 mm) • Pozidrive #3 Bit for electric driver (Black & Decker, Skill, Thor, Atlas-Copco, Virax, Consolidated, Bosch, Ingersoll-Rand), hexagon. 1/4” (6.35 mm) • Pozidrive #3 Bit for electric driver (Bosch, Metabo, AEG), hexagon. 1/4” (5.5 mm) • Pozidrive #3 Bit for electric driver (Fein, AEG) • Torx bit 25/50 - 1/4 inch	per piece per piece per piece per piece per piece per piece per piece per piece per piece 10 pieces	160806 162800 162574 162575 162576 160805 160802 160803 160804 163066
	• Special set for repairs (drill bit and plugs) • Drill bit for repair set • Special plastic plugs for repair set	per set per piece 50 pieces	162127 162128 162129
	• Plastic plugs mixed • Plastic plugs silver	500 pieces 500 pieces	160857 162856
	• Service-Grease-Spray (500 ml) • Grease • Glue	per piece per piece per piece	162779 160052 160858
	• Rubber band for brake	10 pieces	162562
	• Rental Boot Indicator (Single Code, mm) • Slide (replacement) for Rental Boot Indicator	per piece per piece	162617 162518
	• SINGLE CODE Rental Boot Stickers (5 sheets)	per set	162561
	• Boot Height Adjustment Tester	per piece	162983

Drill Template Selection 2015/16

All ELAN templates are equipped with extended clamping jaws and an enlarged range of the fixing mechanism. The STANDARD fixing mechanism ranges from 59 to 108mm, the ADRENALIN and AMBITION mechanism from 75 to 125mm and the FAT mechanism from 104 to 154mm. For more versatility ELAN offers a template adapter set to adapt the mounting range of your jig (see the page 71).

DRILL TEMPLATE 92 W (162760) for ski widths from 59 to 108 mm
DRILL TEMPLATE 92 FAT (162868) for ski widths from 104 to 154 mm

BINDINGS:

ER 20.0 (X) Free Flex EVO, ER 16.0 (X) Free Flex EVO, ER 17.0 FreeFlex Pro, ER 11.0 FreeFlex Pro, ER 11.0, EFS 10.0, EL 10.0, ATTACK 18 (X), ATTACK 16, ATTACK 13, ATTACK 11, EL 7.5 AC

DRILL TEMPLATE ADRENALIN (162976)
PAPER TEMPLATE ADRENALIN (163010)

BINDINGS:

ADRENALIN 13 Long, ADRENALIN 13 Short

DRILL TEMPLATE AMBITION (163000)
PAPER TEMPLATE AMBITION (163011)

BINDINGS:

AMBITION 12, AMBITION 10

DRILL TEMPLATE ATTACK DEMO (163009)
PAPER TEMPLATE ATTACK DEMO (163015)

BINDINGS:

ATTACK 13 DEMO

DRILL TEMPLATE RACE 94 W (162761)

BINDINGS:

EL 4.5 AC

DRILL TEMPLATE RACE PLATE 09 (162902)

PLATES:

Raceplate (RDX) EP 14 WC, Raceplate Junior EP 11.5 DUO

DRILL TEMPLATE SP 2003 W (162763) for ski widths from 59 to 108 mm
DRILL TEMPLATE SP 2003 FAT (162879) for ski widths from 104 to 154 mm

BINDINGS:

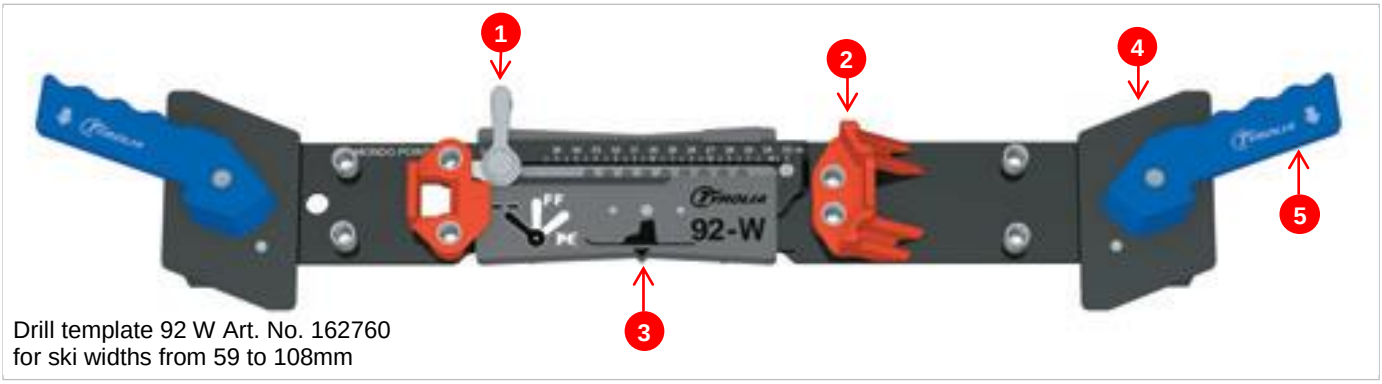
ESP 10.0, ESP 7.5 AC, ESP 4.5 AC

DRILL TEMPLATE SR 2003 W (162762)

BINDINGS:

ESR 10.0

Drill Template 92 W & 92 FAT



Drill template 92 W Art. No. 162760
for ski widths from 59 to 108mm

1. COMPATIBILITY

Presently drill templates 92 W and 92 FAT can be used for:

ER 20.0 (X) FF EVO	ER (X) 16.0 FF EVO
ER 17.0 FreeFlex Pro	Attack 18 (X)
ER 11.0 FreeFlex Pro	Attack 11
ER 11.0	EFS 10.0
Attack 16	EL 10.0
Attack 13	EL 7.5 AC

All ELAN's adult bindings come with screws with a penetration depth of 8 mm for skis, group G1 & G2. The junior EL 7.5 AC bindings are delivered with screws with a penetration depth of 6 mm. For mounting junior bindings on ELAN Plates or on skis, group G1 & G2, replace them by longer screws.

Drill template 92 W can be used for ski widths from 59 mm to 108 mm. For other skis use the template adapter set (Art. nr. 162 569). With this adapter set, skis from 45 to 132 mm can be mounted.

Drill template 92 W can be used for ski widths from 59 mm to 108 mm, whereas the drill template 92 FAT fits ski widths from 104 mm to 154 mm. For other skis use the template adapter set (Art. no. 162569). With this adapter set, you can mount skis from 45 mm to 132 mm with the standard drill template 92 W, as well as skis from 90 mm to 178 mm with Drill Template 92 FAT.

NOTE: ELAN offers different types of brakes. Refer to the brake overview on page 33 for brake and binding compatibility.

The description of the brakes always includes a number and a color-letter code. This number stands for the maximum ski width in the brake area and not in the ski center! The color letter code defines the brake segment.

2. ADJUSTING THE DRILL TEMPLATE

There are two different mounting procedures for template 92 W, one for FREEFLEX PRO and one for SCREW-ON (two-piece) bindings.

To adjust the template, unlock the locking lever (1) by rotating it counter-clockwise to the far left position.

ER FREEFLEX PRO:

NOTE: Due to the center piece these bindings are limited to ski boots with sole lengths from 257 to 372 mm.

Place the ski boot in the template and push the template together until the stops (2) come against the ski boot sole. Take the boot out of the template. Position the locking lever (1) in the mid position, then open or close the template to the nearest centimeter mark.

SCREW ON (two piece) BINDINGS:

Place the ski boot in the template and push the template together until the stops (2) come against the ski boot sole. Lock the lever to the far right position to prevent length change, and then take the boot out of the template.

3. POSITIONING OF THE DRILL TEMPLATE

Open the clamping jaws (4) of the template by rotating the clamping handles (5) and then place template correctly on the ski, with the boot midsole indicator (3) aligned with the mounting mark on the ski. Be sure the template is evenly seated against the ski's top surface. Release clamping handles thus attaching the template to the ski.

Check the boot midsole mark with template mark. If they are not the same use the boot midsole mark to align the template with the ski mounting mark.

NOTE: Keep in mind that some ski manufacturers do not use the center of boot sole location method, always follow their instructions.

4. DRILLING THE HOLES

For ELAN skis: Refer to the Drill Bit chart on Page 8.

Other skis: If not otherwise specified by the ski manufacturer, use a Ø 4.1 x 9.0mm drill bit. Use a Ø 4.1 x 7.0mm drill bit for skis, group G3 & G4. Drill the holes using the appropriate drill bit. If required by the ski manufacturer, tap the holes. After drilling place a drop of glue in each hole. It lubricates the screws and seals the holes (Pict.01).

Pict. 01

5. MOUNTING

5.1 FOR ER FREEFLEX EVO/PRO:

Place the pre-assembled heel over the prepared holes (Pict.02) and tighten the screws in a cross pattern.

Pict. 02

Then attach the AFD to the toe and check if the AFD has snapped in, in its specific position (Pict.03 and 04).

Pict. 03

Pict. 04

Then you have to place the pre-assembled toe over the holes.

Pict. 05

ATTENTION: First you have to tighten the screw in the center – the number has to correspond to the centimeter mark from the template. To fix it you have to hold the bands together and tighten the screw carefully.

Pict. 06

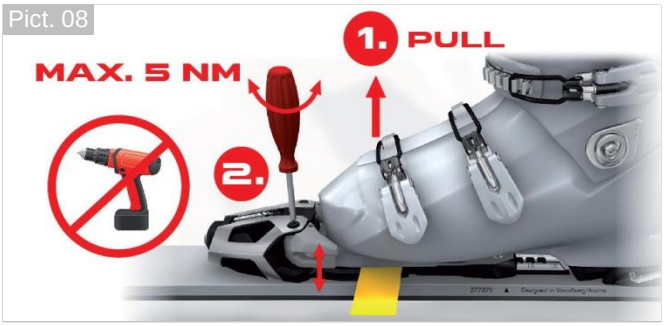
After this align the toe over the holes and fasten the screws in a cross pattern.

Pict. 07

5.1.1 SOLE HEIGHT ADJUSTMENT - FREEFLEX EVO

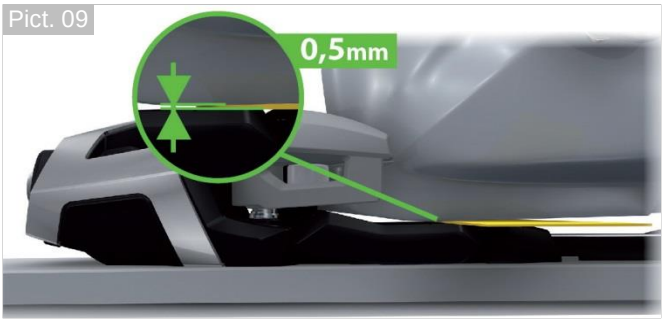
For proper function of the Freeflex EVO binding the height of the Race AFD must be adjusted to the height of the boot sole. ELAN recommends using the “Boot height adjustment tester” (Art.No. 162983) to get the ideal distance of 0.5 mm between boot and AFD. Use Freeflex EVO bindings only with Alpine boots.
Turning the adjustment screw at the toe moves the Wings up or down. Place the tester on the AFD and enter the boot in the binding. Lift the tip of the boot to take out the play of the toe (Pict.08).

Pict. 08



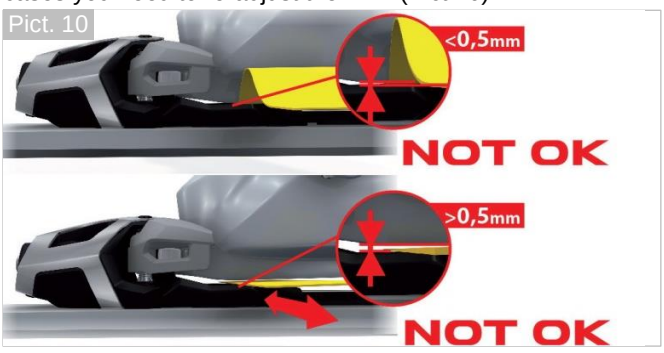
Adjust the AFD with the screw on the top so that the tester is still moveable but with a slight resistance. In this case, you reached a gap of 0.5mm between AFD and the boot (Pict.09).

Pict. 09



If the tester is not moveable, the gap is smaller than 0.5mm, if you feel no resistance the gap is more than 0.5mm. In both cases you need to re-adjust the AFD (Pict.10).

Pict. 10



5.2 FOR SCREW-ON (two-piece) BINDINGS

Hook the brake into heel housing and place the binding over predrilled holes and tighten the screws in a cross pattern.

Pict. 11

5.2.1 JUNIOR BINDINGS – AFS JUNIOR ON DIN 7.5 AC MODELS

The SX Junior Line is suitable for both adult (type A) and children (type C) boots: the innovative mechanical Anti Friction Slider (AFS) automatically adjusts to the boot sole height, compensating A/C standards as well as height differences due to icing up, dirt or boot wear (Pict.12).

Pict. 12

If you want to increase the stability of your junior binding in combination with children (type C) boots, e.g. for junior racing, you can replace the standard AFS with a vertically blocked AFS (Art. No.162962), which is for children (type C) boots ONLY. All you have to do is to separate the standard slider from the base plate (Pict.13).

Pict. 13

Afterwards you can simply click in the spare slider (Pict.14).

Pict. 14

MOUNTING OF JUNIOR BINDINGS ON PLATES AND ON SKIS, GROUP G1 & G2

For mounting junior bindings on plates or on skis, group G1&G2, replace the pre-mounted screws by 8 mm penetration depth screws. Only with these screws is the right pullout strength guaranteed.

5.3 ATTACK 16 AND 13 BINDINGS

5.3.1 MOUNTING ATTACK 16 AND 13

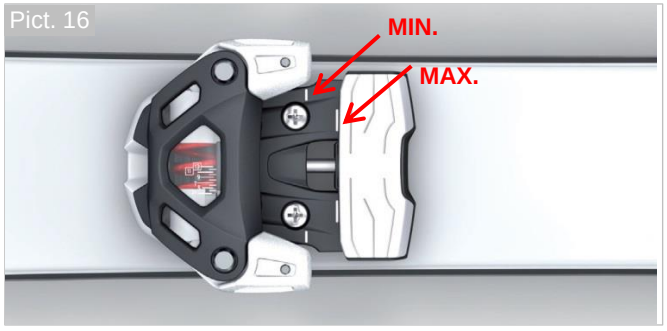
For mounting the toe unit at ATTACK 16 and 13 bindings, place the mounting part over the front 2 predrilled holes and tighten the screws. Now slide the toe unit from the rear over the mounting part and fasten the screws. Go on by mounting the heel unit. Hook the brake into heel housing and place the heel unit over the predrilled holes and tighten the screws in a cross pattern (Pict.15).

Pict. 15

5.3.2 SOLE HEIGHT ADJUSTMENT

For proper function the height of the AFD must be adjusted to the height of the boot sole. ELAN recommends using the “BOOT HEIGHT ADJUSTMENT TESTER” (Art. No. 162983) to get the ideal distance of 0.5 mm between boot and AFD. Use ATTACK bindings only with Alpine boots (TYPE A). Please stay in the marked adjustment range area. (Pict.16).

Pict. 16



Turning the adjustment screw at the toe moves the AFD up or down. Place the tester on the AFD and enter the boot in the binding. Lift the tip of the boot to take out the play of the toe. (Pict.17).

Pict. 17

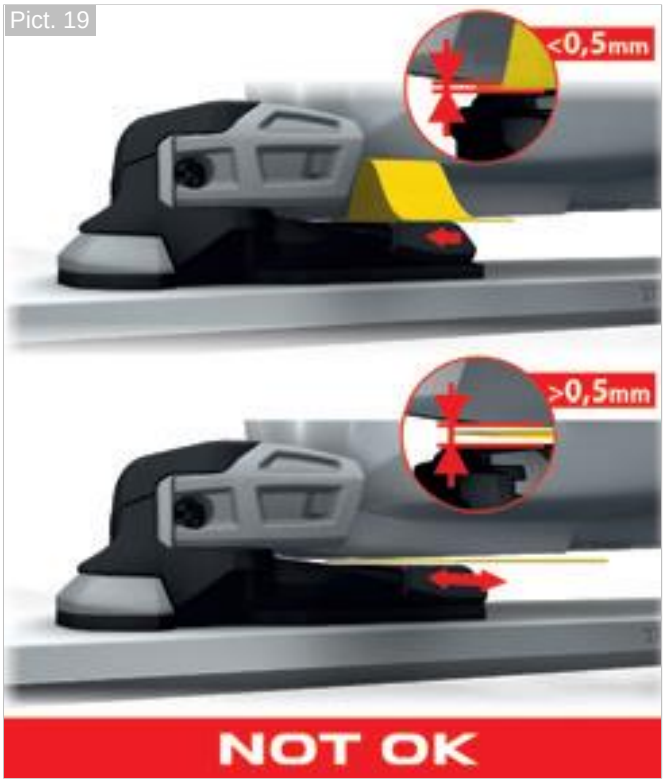
Adjust the AFD with the screw in the front so that the tester is still moveable but with a slight resistance. In this case, you reached a gap of 0.5 mm between AFD and the boot (Pict.18).

Pict. 18

If the tester is not moveable, the gap is smaller than 0.5 mm, if you feel no resistance the gap is more than 0.5 mm.

In both cases you need to re-adjust the AFD (Pict.19).

Pict. 19



6. FORWARD PRESSURE

Make sure that the boot meets international standards and is not damaged.

Place the boot in the binding and close it. The indicating pointer should rest within the scribed area (Pict.20) if not; you have to adjust the forward pressure.

DON'T OPEN THE LENGTH ADJUSTMENT LOCK AS LONG AS A SKI BOOT IS FIXED IN THE BINDING.

Place the ski boot in the open binding and rest the boot heel on the brake pedal. Lift the length adjustment lock with a screwdriver and slide the heel until the heel cup just touches the boot. Lock the length adjustment by pushing it down. Latch the boot in the binding and check forward pressure again. The toe pincers should not be pressed open and the indicating pointer should rest within the scribed area (Pict.20).

Pict. 20

7. ADJUSTING THE RELEASE VALUES

The release values of the toe and heel should be determined by height and body weight (ISO/ASTM) method. Set the binding accordingly with the adjustment screws at heel and toe unit. ELAN recommends adjusting these settings with a manual screwdriver. Do NOT use a screw shooter. We also recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).

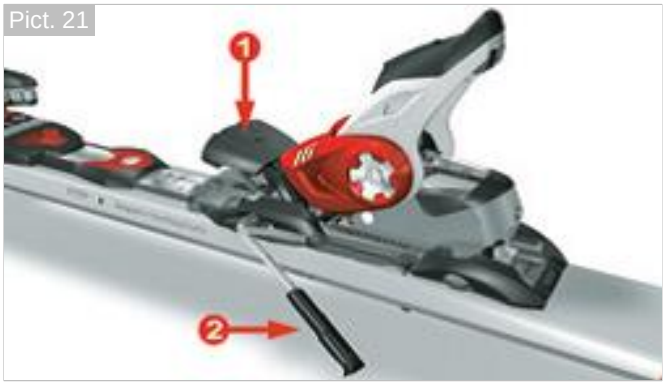
NOTE: Release/retention settings above a release moment of 100Nm at the toe and 425Nm at the heel are higher than the international standards recommend and are used solely at the skier's own risk!

8. FUNCTION CHECK

ENTRY/EXIT: Check to make sure that the boot does not catch on the heel hold down lug.

BRAKE: press the brake pedal (1) down by hand (Pict.21).

Pict. 21



The brake arms (2) must automatically return to the braking position when the pedal is released.

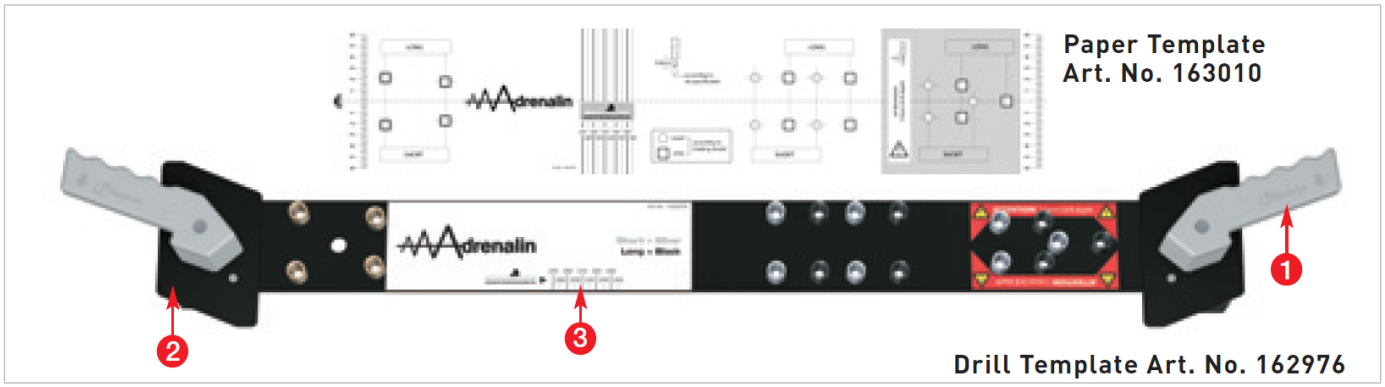
LATERAL ELASTICITY OF THE TOE

Press the boot laterally outward. The binding must re-center the boot easily and quickly from a 15 mm lateral displacement (junior bindings – 10 mm).

9. FINAL CHECK

- Has the proper mounting point been selected?
- Functional brake test passed?
- Have all screws been fastened tightly?
- Has the forward pressure been properly set?
- Are the release values of the toe and the heel properly determined and set?
- Is the instruction for use booklet ready to be handed over to the consumer?

Drill template ADRENALIN



1. COMPATIBILITY

Presently the drill template ADRENALIN can be used for:

ADRENALIN 13 Long
ADRENALIN 13 Short

All ADRENALIN bindings come with 8mm penetration screws (except the screws for the locking mechanism, which have only 6 mm penetration) and can be used with skis of groups G1 & G2.

Drill template ADRENALIN can be used for ski widths from 75 to 125mm. For other skis use the template adapter set (Art. No. 162569). With this adapter set, skis from 61 to 149mm can be mounted.

NOTE: ELAN offers different types of brakes. Refer to the brake overview on page 33 for brake and binding compatibility.

The description of the brakes always includes a number and a color-letter code. This number stands for the maximum ski width in the brake area and not in the ski center! The color letter code defines the brake segment.

2. POSITIONING OF THE TEMPLATE

There are two ways to mount ADRENALIN bindings. Either with the solid jig (Art. No. 162976) or with the paper template, which is included in the packaging of each binding. We will show both procedures.

First of all, make sure that the boot is satisfying the international standards and has no functional damage. Determine the boot sole length with the rental caliper (Art. No. 162617).

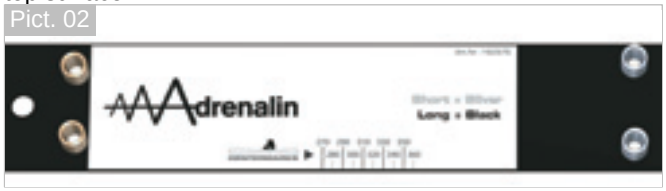
Pict. 01

NOTE: Keep in mind that some ski manufacturers do not use the center of boot sole location method. Always follow the ski manufacturer's instructions.

2.1 DRILL TEMPLATE

Open the clamping jaws (2) by rotating the clamping handles (1) and then place the template on the ski. Align the boot midsole indicator (3) for the appropriate boot sole length with the midsole mounting mark on the ski. Release the handles and ensure that the template is evenly seated against the ski's top surface.

Pict. 02



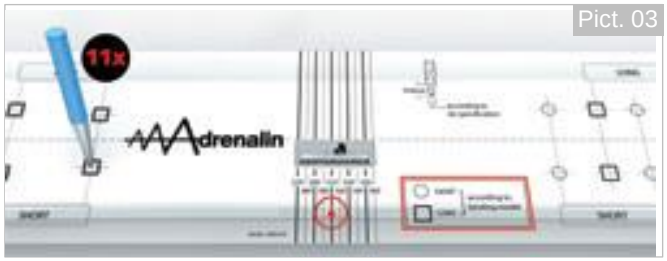
The front holes are identical for both versions (gold bushings). You just have to select the right bushings for the rear holes:

Version	Color of bushings
ADRENALIN Short 270-330 mm	silver
ADRENALIN Long 300-360 mm	black

2.2 PAPER TEMPLATE

Align the boot midsole indicator for the appropriate boot sole length with the midsole mounting mark on the ski. Fix it with a sticky tape and ensure that the template is centered and evenly seated against the ski's top surface. After that you can mark the correct indicators with a punch (Pict.03).

Pict. 03



The front holes are identical for both versions. You just have to select the right indicator for the rear holes.

Version	Symbol of bushings
ADRENALIN Short 270-330 mm	○
ADRENALIN Long 300-360 mm	□

3. DRILLING THE HOLES

If not otherwise specified by the ski manufacturer, use the Ø4.1 x 9mm drill bit for the holes for the toe and the heel track and a Ø 4.1 x 7mm drill bit for the holes for the locking mechanism. If required by the ski manufacturer, tap the holes.

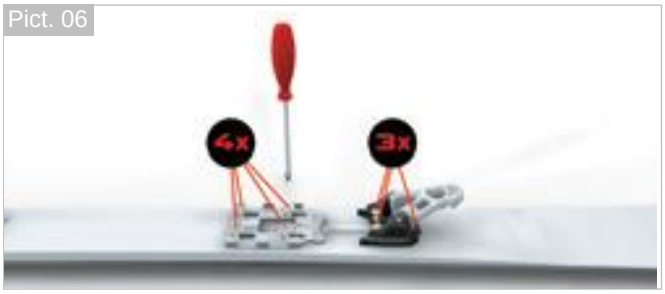
Pict. 04

After drilling, place a drop of glue into the holes. It lubricates the screws and seals the holes.

4. MOUNTING

Place the heel track assembly over the holes and fasten all screws in a cross pattern.

Pict. 06



Then you can place the toe assembly over the holes and fasten the two front screws lightly. (1-2 turns).

Pict. 07

After that you have to close the platform with the ascender lock and then tighten the front screws.

Pict. 08

Open the lock again and tighten the other two screws of the toe piece.

Pict. 09

Now you can mount the heel. Therefore hook the brake into the heel housing (Pict.10).

Pict. 10

Slide the heel on the platform from the back and lock it at the appropriate boot sole marking (Pict.11).

Pict. 11

After that you can close the ascender lock and you are ready for the final adjustments.

Pict. 12

5. SOLE HEIGHT ADJUSTMENT

The ADRENALIN is designed to accommodate both type of boots - ALPINE SKI BOOTS (according to DIN/ISO 5355) and TOURING BOOTS (according to DIN/ISO 9523). Please use the A (Alpine) and T (Touring) markings for rough adjustment. (Pict.13).

Pict. 13

For proper function the height of the AFS must be adjusted to the height of the boot sole. ELAN recommends to use the “BOOT HEIGHT ADJUSTMENT TESTER” (Art. No. 162983) to get the ideal distance of 0.5mm between boot and AFS. Turning the adjustment screw at the toe moves the AFS up or down. Place the tester (Art. No. 162983) on the AFS and enter the boot in the binding. Lift the tip of the boot to take out the play of the toe.

Pict. 14

Adjust the AFS with the screw in the front so that the tester is still moveable but with a slight resistance. In this case, you reached a gap of 0.5 mm between AFS and the boot (Pict.15).

Pict. 15

If the tester is not moveable, the gap is smaller than 0,5 mm, if you feel no resistance the gap is more than 0.5 mm. In both cases you need to re-adjust the AFS (Pict.16).

Pict. 16

6. FORWARD PRESSURE

Check the forward pressure, by placing a boot into the binding. If you have followed all mounting steps correctly, the indicator should rest in the marked area – and you are ready to go.

Pict. 17

If you have too much or not enough forward pressure, check the settings and if necessary re-adjust the heel. Then close the lever and check the forward pressure again.

Now it should be okay.

7. ADJUSTMENT OF THE RELEASE VALUES

The release values of the toe and heel should be determined by height and body weight (ISO/ASTM) method.

Set the binding accordingly with the adjustment screws at heel and toe unit. ELAN recommends adjusting these settings by hand with a manual screwdriver. We also recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).

NOTE: Release/ Retention settings above a release moment of 100Nm at the toe and 425Nm at the heel are higher than the international standards recommend and are used solely at the skier's own risk!

8. FUNCTION CHECK

Check the function of the heel. Make sure that the boot does not catch on the heel during entry and exit. Check the brake function by pressing down the brake pedal (1) by hand. The brake arms (2) must open to the braking position when the brake pedal is released.

Pict. 18

Check the elasticity and retention of the toe by pushing the boot inward and outward. The binding must re-center the boot easily and quickly from a 15 mm lateral displacement.

9. ADDITIONAL EQUIPMENT AND SPARE PARTS FOR ADRENALIN:

9.1 ADRENALIN CRAMPONS

ELAN is offering additional crampons for ADRENALIN Bindings. Use the crampons in icy and hard snow conditions to provide safe climbing and a secure stance in any situation. Be sure to use the right width - 90 mm (Art.No. 162977), 105 mm (Art.No. 162978) or 120 mm (Art.No. 162979).

MOUNTING: Open the climbing aid and lift the binding. Take the crampon and slide it to the fixing- position on the bottom of the hiking platform. Consider the right position as shown in Pict.19.

Lock the crampon with the lever- ready!

Pict. 19

To remove just unlock the crampon with the lever and take off the crampon from the platform (Pict.20).

Pict. 20

9.2 AAA-SERIES POWDER STRAP (Art.No. 162981)

At ADRENALIN bindings it is required to use proper brakes. It is also possible to use the additional AAA-Series powder strap. To fix the strap on your binding take the hanger from the strap and fix it on the heel lever as shown in picture 66. Fix the strap with the Velcro fastener on your leg and use the carabineer to connect strap and hanger again.

Pict. 21

9.3 SPARE PARTS FOR ADRENALIN

Changing AFS Metal Pro Art. No.162984 Slide the AFS by turning the adjustment screw to highest position. Take off the old AFS.

Pict. 22

Bring the new slider in position. Make sure that AFS is positioned on the two side rails and the guide screw of the binding matches the screw – nut at AFS. Therefore press the screw from the bottom up and slide the AFS to rails at once.

Pict. 23

Make a readjustment of your sole height as described before (page 42-43).

Changing the climbing aid set Art. No.162892

The climbing aid includes 1 wrench, 2 screws, 2 fixing parts and 2 climbing levers. First open the ascender lock and slide the heel housing from the platform. Remove the fixing screw with the added wrench on the top of the platform and furthermore the fixing part and the climbing lever form the bottom (Pict .24).

Pict. 24

Put the binding to a straight position. Insert and click the new parts as show in picture 70 into position – use the 13° climbing position. Picture 70 shows the right position of the lever (the flatten part indicator has to be on the bottom side).

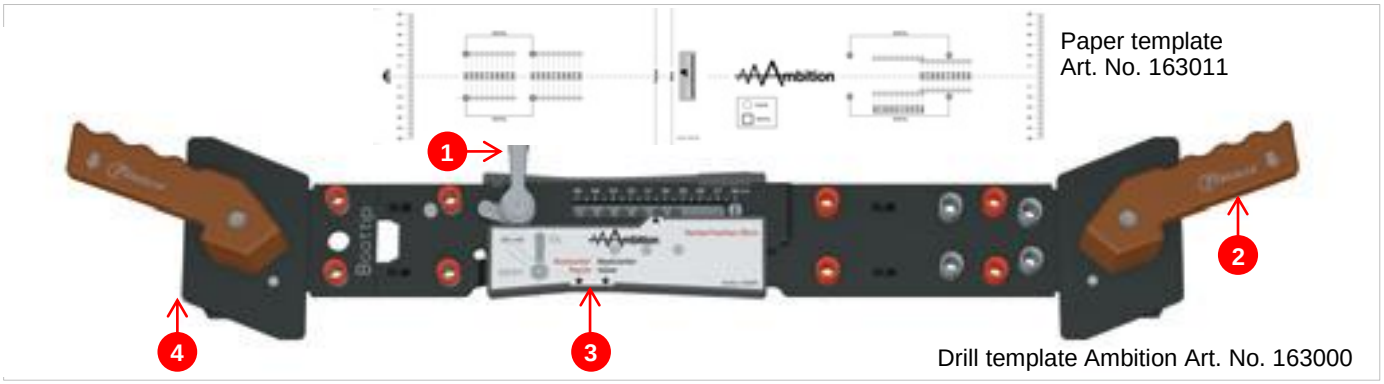
Pict. 25

Fasten the screw and check the all 3 climbing positions. Slide the heel housing with the brake from the back and lock it at the appropriate boot sole marking.

10. FINAL CHECK

- Is the proper mounting point selected?
- Is the Brake mounted?
- Functional brake test passed?
- Are all screws fastened tightly?
- Is the forward pressure properly adjusted?
- Are the release values of the toe and the heel properly determined and set?
- Is the instruction for use booklet ready to be handed over to the consumer?

Drill Template AMBITION



Paper template
Art. No. 163011

Drill template Ambition Art. No. 163000

1. COMPATIBILITY

Presently the drill template AMBITION can be used for:

Ambition 12	Ambition 10

All AMBITON bindings come with 8mm penetration screws and can be used with skis of groups G1 & G2. Drill template AMBITION can be used for ski widths from 75 to 125mm. For other skis use the template adapter set (Art. No. 162569). With this adapter set, skis from 61 to 149mm can be mounted. Alternatively, the use of the attached paper template is also an option

NOTE: There are different types of brakes. Refer to the brake overview on page 33 for brake and binding compatibility.

The description of the brakes always includes a number and a color-letter code. This number stands for the maximum ski width in the brake area and not in the ski center! The color letter code defines the brake segment.

2. POSITIONING OF THE TEMPLATE

There are two ways to mount AMBITION bindings. Either with the solid jig (Art. No. 163000) or with the paper template (Art. No. 163011), which is included in the packaging of each binding. We will show both procedures. First of all, make sure that the boot is satisfying the international standards and has no functional damage. Determine the boot sole length with the Rental caliper (Art. No. 162617).

Pict. 01

NOTE: Keep in mind that some ski manufacturers do not use the center of boot sole location method. Always follow their instructions.

2.1 DRILL TEMPLATE

Adjust the boot sole length on the template - open it by pulling the locking lever (1) to the left position. Slide the template to the right length position and push the locking lever (1) to middle position. Slide the template to closest centimeter mark, until it snaps into position. Place the template on the ski and center the jig. Therefore open the clamping jaws (2) by rotating the clamping handles (3) and then place the template on the ski. Therefore select the right midsole indicator on the template (Black for RETAIL and Red for RENTAL version), align the indicator with the midsole mounting mark on the ski.

Pict. 02

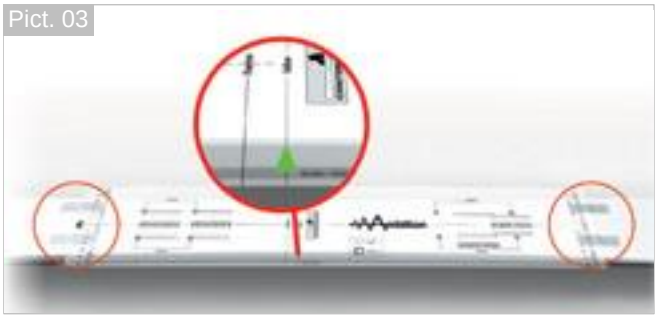
Release the handles and ensure that the template is evenly seated against the ski's top surface. Select the right holes! The front holes are identical for both versions (Retail and Rental - red-silver bushings). You just have to select the right bushings for the rear holes:

Version	Color of bushings
AMBITION Retail	silver
AMBITION Rental	red

2.2 PAPER TEMPLATE

Align the boot midsole indicator (RETAIL or RENTAL) for the appropriate boot sole length with the midsole mounting mark on the ski. Fix it with a sticky tape and ensure that the template is centered and evenly seated against the ski's top surface.

Pict. 03



After that you can mark the correct positions with a punch (Pict.04) for front and rear position. For Retail Version use the circle-indicator and mark the closest centimeter position. For Rental version use the quad-indicators.

Pict. 04

3. DRILLING THE HOLES

If not otherwise specified by the ski manufacturer, use the Ø4.1 x 9mm drill bit for the toe and the heel track (8 holes) if required by the ski manufacturer, tap the holes. After drilling, place a drop of glue into the holes. It lubricates the screws and seals the holes.

Pict. 05

4. MOUNTING

Just start with mounting the heel unit of the binding depending on the version. The mounting of the toe unit is the same in both versions.

4.1 RETAIL VERSION – HEEL UNIT

Place the heel unit over the rear holes and fasten all screws in a cross pattern and continue at 4.3.

Pict. 06

4.2 RENTAL VERSION – HEEL UNIT

Start with placing the Demo Track over the holes and fasten all screws in a cross pattern. Use the screws provided with the binding.

Pict. 07

Insert the screw in the bottom side of the heel unit, and slide the whole unit to the closest mounting position on demo track and fix it with the screw.

Pict. 08

4.3 MOUNTING OF THE TOE UNIT

If you are mounting the **RENTAL** version, the dampener has to be changed (white damper out and black one in).

Pict. 09

From now on the mounting is the same in both version (RETAIL and RENTAL). Start with the Adjustment of the telescopic tube to the closest mounting position and fix it with the screw.

Pict. 10

Close the ascender lock and slide the binding into the closed position (Pict.11).

Pict. 11

Place the toe unit assembly over the front holes and fasten the two front screws (Pict.12).

Pict. 12

Open the ascender lock and tighten the other two screws of the toe unit (Pict.13).

Pict. 13

ATTENTION!!! AMBITION binding are delivered without brakes. Please choose the proper brake width for your ski and mount it on the binding. You can also use it to ride and hike with the appropriate powder straps. It is required to use one of these options (refer to ISO 11088)!

Art. No.:	Spare parts
163003	Brake AMBITION 85 (C) (1 pair)
163016	Brake AMBITION 95 (C) (1 pair)
163004	Brake AMBITION 105 (C) (1 pair)
163005	Brake AMBITION 125 (C) (1 pair)
162981	AAA-Series Powder Strap (1 pair)

4.4 MOUNTING OF THE BRAKES

Remove the heel base plate – therefore remove both screws completely. Pop out the plate with a flat screwdriver.

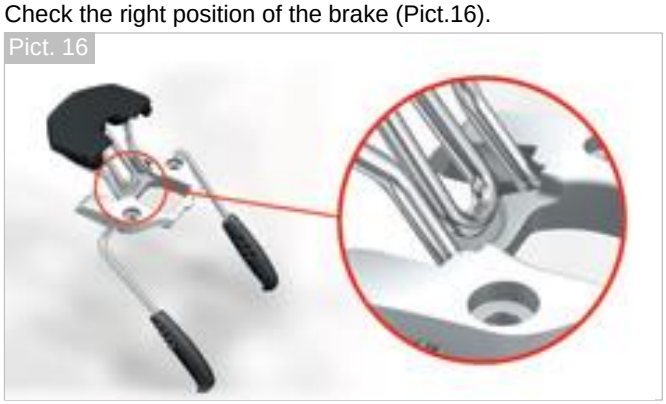
Pict. 14

Take the AMBITION brake arm, press it together and clap the brake pedal to a horizontal position. First click right then left side into place.

Pict. 15

Check the right position of the brake (Pict.16).

Pict. 16



Place the brake to its position on the heel unit; push the plate to lock on binding. Fix the plate with the two screws. Ready!

Pict. 17

5. SOLE HEIGHT ADJUSTMENT

The Ambition is designed to accommodate both type of boots - ALPINE SKI BOOTS (according to DIN/ISO 5355) and TOURING BOOTS (according to DIN/ISO 9523). For proper function the height of the toe unit must be adjusted to the height of the boot sole. ELAN recommends using the “BOOT HEIGHT ADJUSTMENT TESTER” (Art. No. 162983) to get the ideal distance of 0.5mm between boot and AFS. Turning the adjustment screw at the toe moves the unit up or down. Place the tester on the AFS and enter the boot in the binding. Lift the tip of the boot to take out the play of the toe.

Pict. 18

Adjust the AFS with the screw in the front so that the tester is still moveable but with a slight resistance. In this case, you reached a gap of 0.5mm between AFS and the boot (Pict.19).

Pict. 19

Pict. 20

If the tester is not moveable, the gap is smaller than 0.5mm, if you feel no resistance the gap is more than 0.5mm. In both cases you need to re-adjust the AFS (Pict.20).

6. FORWARD PRESSURE

Check the forward pressure, by placing a boot into the binding. If you have followed all mounting steps correctly, the indicator and the heel housing should be on a flat surface.

If you have too much or not enough forward pressure, check the settings and if necessary re-adjust the heel.

Pict. 21

7. ADJUSTMENT OF THE RELEASE VALUES

The release values of the toe and heel should be determined by height and body weight (ISO/ASTM) method. Set the binding accordingly with the adjustment screws at heel and toe unit. ELAN recommends adjusting these settings with a manual screwdriver. Do NOT use a screw shooter. We also recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).

NOTE: Release/ Retention settings above a release moment of 100 Nm at the toe and 425 Nm at the heel are higher than the international standards recommend and are used solely at the skier's own risk!

8. FUNCTION CHECK

Check the function of the heel. Make sure that the boot does not catch on the heel during entry and exit. Check the brake function by pressing down the brake pedal (1) by hand. The brake arms (2) must open to the braking position when the brake pedal is released. Check the elasticity and retention of the toe by pushing the boot inward and outward. The binding must re-center the boot easily and quickly from a 15mm lateral displacement. (Pict.22)

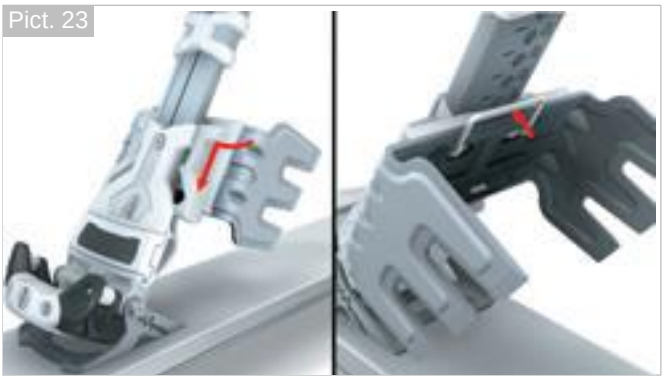
Pict. 22

9. ADDITIONAL EQUIPMENT AND SPARE PARTS FOR AMBITION:

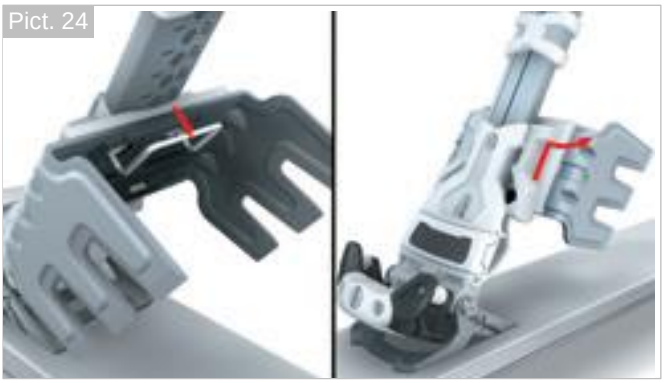
9.1 AMBITION CRAMPONS

ELAN is offering additional crampons for AMBITON Bindings. Use the crampons in icy and hard snow conditions to provide safe climbing and a secure stance in any situation. Be sure to use the right width - 90mm (Art.No. 163006), 105mm (Art.No. 163007) or 120mm (Art.No. 163008).

MOUNTING: Open the climbing aid and swing open the binding. Take the crampon and slide it to the fixing- position on the bottom of the telescopic tube. Consider the right position as shown in Pict.23. Lock the crampon with the lever- ready!


Pict. 23

To remove just unlock the crampon with the lever and take off the crampon from the telescopic tube (Pict.24).


Pict. 24

9.2 AAA-SERIES POWDER STRAP

Instead of brakes it is also possible to use the AAA-Series powder strap for riding and hiking. At AMBITION bindings it is required to use either brakes or powder strap!

To fix the strap on your binding take the hanger from the strap and fix it on the heel lever as shown in Pict.25.

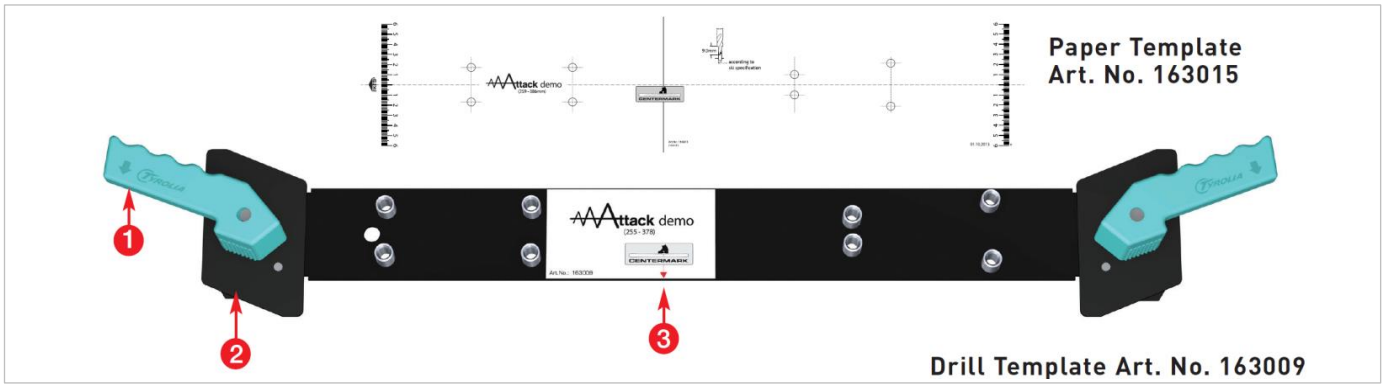
Pict. 25

Fix the strap with the Velcro fastener on your leg and use the karabiner to connect strap and hanger again.

10. FINAL CHECK

- Is the proper mounting point selected?
- Brake or Powder Strap mounted?
- Functional brake test passed?
- Are all screws fastened tightly?
- Is the forward pressure properly adjusted?
- Are the release values of the toe and the heel properly determined and set?
- Is the instruction for use booklet ready to be handed over to the consumer?

Drill template ATTACK DEMO



1. COMPATIBILITY

Presently the drill template ATTACK Demo can be used for:

ATTACK 13.0 DEMO

All Attack 13 Demo bindings come with 8mm penetration screws and can be used with skis of groups G1 & G2. If recommended by the ski manufacturer use shorter screws with a penetration depth of 6mm. Therefore use the spare part “Screw Set Attack Demo – G3 & G4 (6mm)” Art. No. 163024.

Drill template Attack Demo can be used for ski widths from 75 to 125mm. For other ski widths please use the template adapter set (Art. No. 162569). With this adapter set skis from 61 to 149mm can be mounted.

NOTE: ELAN offers different types of brakes. Refer to the brake overview on page 33 for brake and binding compatibility.

The description of the brakes always includes a number and a color-letter code. This number stands for the maximum ski width in the brake area and not in the ski center! The color letter code defines the brake segment.

For ATTACK Demo bindings all brakes of segment [D] are compatible for use!

2. POSITIONING OF THE TEMPLATE

There are two ways to mount Attack Demo bindings. Either with the solid jig (A.No.163 009) or with the paper template this is included in the packaging of each binding and also available as a spare part A.No. 163 015). We will show both procedures.

Pict. 01

NOTE: Keep in mind that some ski manufacturers do not use the center of boot sole location method. Always follow the ski manufacturer’s instructions.

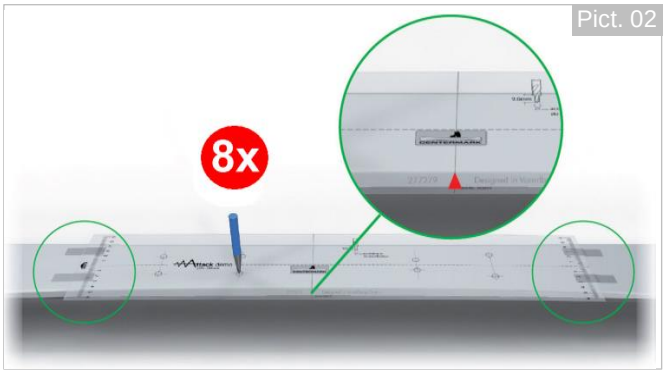
2.1 DRILL TEMPLATE

Open the clamping jaws (2) by rotating the clamping handles (1) and then place the template on the ski. Align the boot midsole indicator (3) for the appropriate boot sole length with the midsole mounting mark on the ski. Release the handles and ensure that the template is evenly seated against the ski’s top surface.

2.2 PAPER TEMPLATE

Align the boot midsole indicator with the midsole mounting mark on the ski. Fix it with a sticky tape and ensure that the template is centered and evenly seated against the ski’s top surface. After that you can mark the indicators (8x) with a punch and remove the paper template from the ski surface (Pict.02).

Pict. 02



3. DRILLING THE HOLES

If not otherwise specified by the ski manufacturer use a Ø 4.1 x 9mm drill bit for all holes (8x) for the toe and the heel track.

Pict. 03

After drilling, place a drop of glue into the holes. It lubricates the screws and seals the holes.

Pict. 04

.

4. MOUNTING

First of all, make sure that the boot is satisfying the international standards and has no functional damage. Determine the boot sole length with the rental caliper (A.No. 162 617).

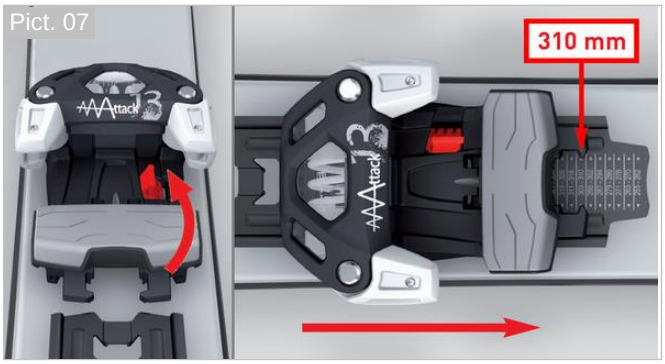
Pict. 05

Go on with placing the toe track over the holes and fasten all screws in a cross pattern.

Pict. 06

Open the one-touch lever and slide the toe unit from the front on the track and lock it at the appropriate boot sole marking.

Pict. 07

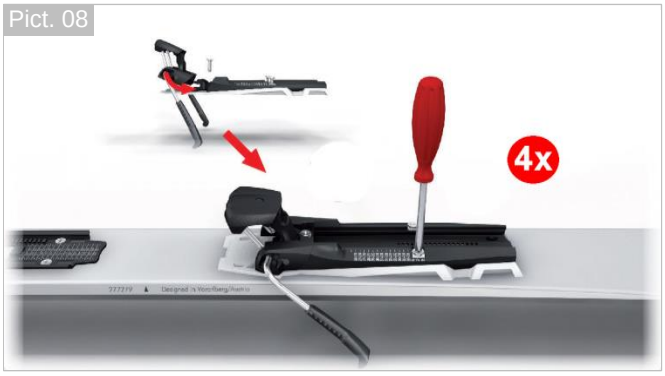


Now you can mount the heel unit.

Don`t forget to add the separate white base plate otherwise you will damage the ski!

Hook the brake into the heel track and place the base plate and the heel track over the holes and fasten all 4 screws in a cross pattern.

Pict. 08



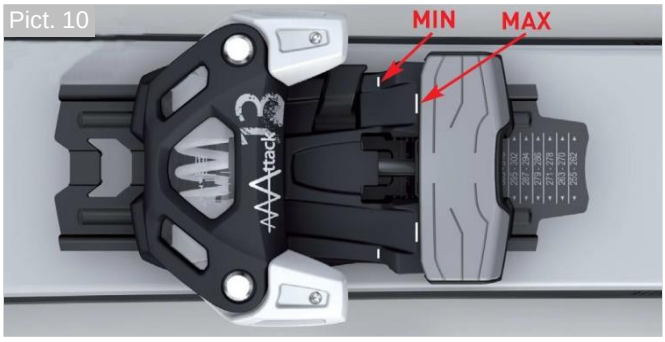
Now open the one touch lever and slide the heel unit from the back to the track and lock it at the appropriate boot sole marking.

Pict. 09

5. SOLE HEIGHT ADJUSTMENT

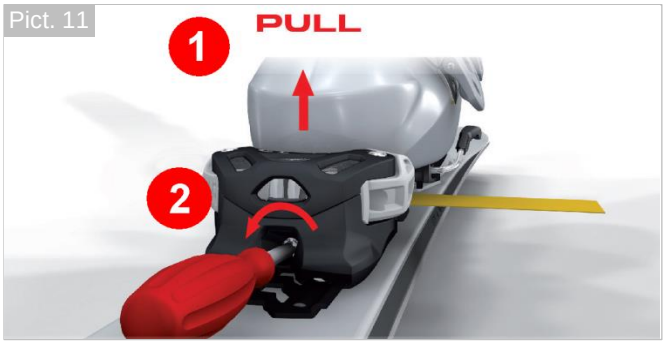
For proper function the height of the AFS must be adjusted to the height of the boot sole. ELAN recommends using the “BOOT HEIGHT ADJUSTMENT TESTER” (A.No. 162 983) to get the ideal distance of 0.5mm between boot and AFS. Use Attack Demo bindings only with Alpine boots (TYPE A). Please stay in the marked range area. (Pict.10).

Pict. 10



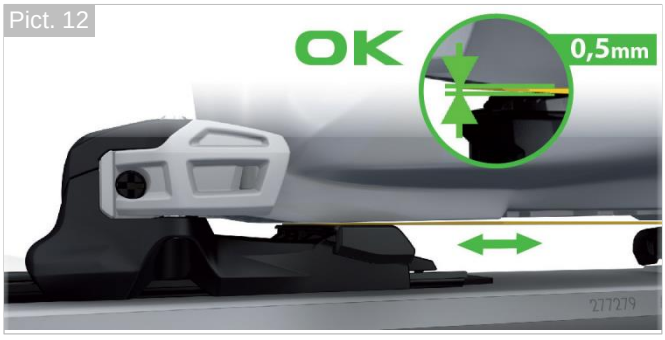
Turning the adjustment screw at the toe moves the AFS up or down. Place the tester on the AFS and enter the boot in the binding. Lift the tip of the boot to take out the play of the toe. Adjust the AFS with the screw in the front so that the tester is still moveable but with a slight resistance.

Pict. 11



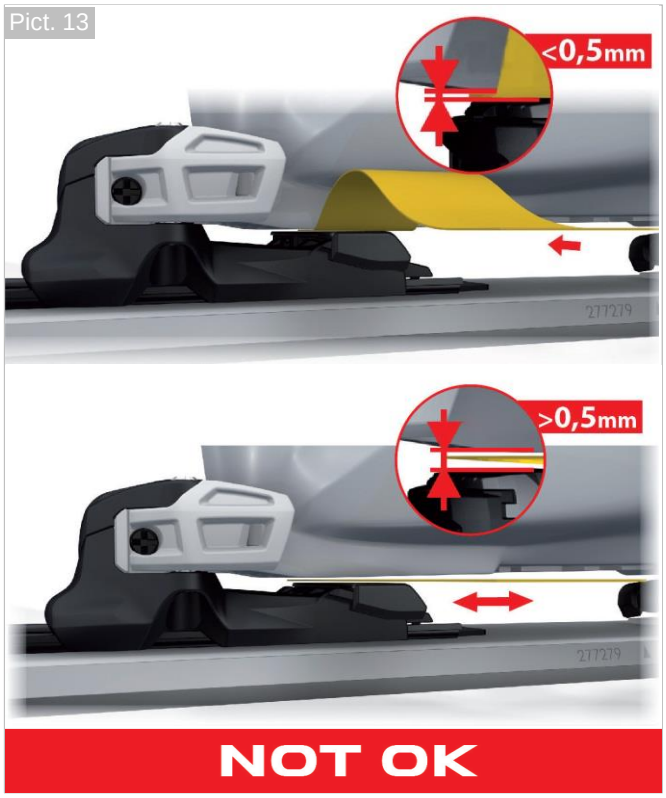
In this case, you reach a gap of 0.5mm between AFS and the boot.

Pict. 12



If the tester is not moveable, the gap is smaller than 0.5 mm, if you feel no resistance the gap is more than 0.5mm. In both cases you need to re-adjust the AFS. (Pict.13)

Pict. 13



6. FORWARD PRESSURE

Check the forward pressure, by placing a boot into the binding. If you have followed all mounting steps correctly, the indicator should rest in the marked area.

Pict. 14

If you have too much or not enough forward pressure, check the settings and if necessary re-adjust the heel. Then close the lever and check the forward pressure again.

Now it should be okay.

7. ADJUSTMENT OF THE RELEASE VALUES

The release values of the toe and heel should be determined by height and body weight (ISO/ASTM) method.

Set the binding accordingly with the adjustment screws at heel and toe unit. ELAN recommends adjusting these settings by hand with a manual screwdriver. We also recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).

NOTE: Release/ Retention settings above a release moment of 100Nm at the toe and 425Nm at the heel are higher than the international standards recommend and are used solely at the skier's own risk!

8. FUNCTION CHECK

Check the function of the heel. Make sure that the boot does not catch on the heel during entry and exit. Check the brake function by pressing down the brake pedal (1) by hand. The brake arms (2) must open to the braking position when the brake pedal is released.

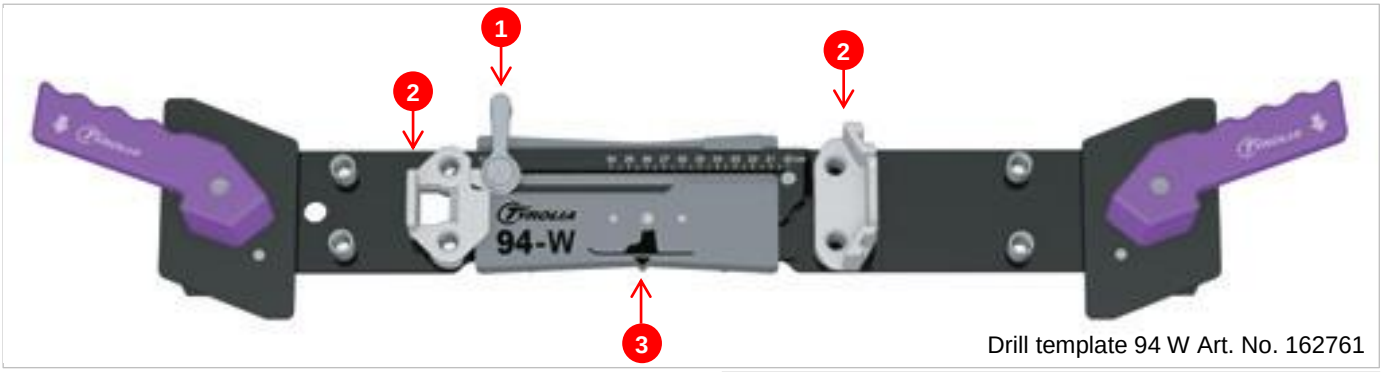
Pict. 15

Check the elasticity and retention of the toe by pushing the boot inward and outward. The binding must re-center the boot easily and quickly from a 15mm lateral displacement.

9. FINAL CHECK

- Is the proper mounting point selected?
- Is the Brake mounted?
- Functional brake test passed?
- Are all screws fastened tightly?
- Is the forward pressure properly adjusted?
- Are the release values of the toe and the heel properly determined and set?
- Is the instruction for use booklet ready to be handed over to the consumer?

Drill Template 94 W



Drill template 94 W Art. No. 162761

1. COMPATIBILITY

Drill template 94 W can be used for:

EL 4.5 AC

Drill template 94 W can be used for ski widths from 59mm to 108mm. For other skis use the template adapter set (Art. no. 162569).

The EL 4.5 AC binding comes with 6mm penetration depth screws and thus could be used for skis, group G3 & G4. The standard brake, the SX KID BRAKE 74 (Art. nr. 162 983), can be used for skis up to 74mm, for wider skis use the SX KID BRAKE wide 84 (Art. nr. 162 964), which is for skis from 74 to 84mm.

NOTE: ELAN offers different types of brakes. Refer to the brake overview on page 33 for brake and binding compatibility.

The description of the brakes always includes a number and a color-letter code. This number stands for the maximum ski width in the brake area and not in the ski center! The color letter code defines the brake segment.

2. ADJUSTING THE DRILL TEMPLATE

Unlock the locking lever (1) by rotating it counterclockwise. Place the template on the ski. Place the ski boot in the template. Push the template together until the violet stops are against the sole comes (2). Lock the lever (1) to prevent length change and take the boot out of the template.

3. POSITIONING OF THE DRILL TEMPLATE

Align the boot midsole indicator (3) with the midsole mounting mark on the ski. Be sure the template is evenly seated against the ski's top surface. Release clamping handles to attach the template to the ski.

Check the boot midsole mark with template mark. If they are not the same use the boot midsole mark to align the template with the ski mounting mark.

NOTE: Some ski manufacturers do not use the center of boot sole location method. Always follow the ski manufacturer's instructions.

4. DRILLING THE HOLES

ELAN skis: refer to the Drill Bit chart on the page 8.

If not otherwise specified by the ski manufacturer, use an Ø4.1x 7.0mm drill bit, which is the right bit for skis, group G3&G4. Drill the holes using appropriate drill. If required by the ski manufacturer, tap the hole.

Place a drop of glue into the holes. It lubricates the screws and seals the ski (Pict.01).

Pict. 01

5. MOUNTING

Place toe unit over the holes and fasten the screws in an X-pattern. Then do the same for the heel.

Pict. 02

6. FORWARD PRESSURE

Place the boot in the binding and close it. The indicating pointer should rest within the scribed area (Pict.03), if not you have to adjust the forward pressure.

DON'T OPEN THE LENGTH ADJUSTMENT LOCK AS LONG AS A SKI BOOT IS FIXED IN THE BINDING.

Place the ski boot in the open binding and rest the boot heel on the brake treadle. Lift the length adjustment lock (1) with a screwdriver and slide the heel until the heel cup just touches the boot. Lock the length adjustment by pushing it down. Latch the boot in the binding and check forward pressure again. The toe pincers should not be pressed open and the indicating pointer should rest within the scribed area (Pict.03).

Pict. 03

7. ADJUSTMENT

Use the Boot Indicator to check and make sure that the boot meets international standards and is not damaged.

Pict. 04

AFS JUNIOR

The SX Junior Line is suitable for both adult (type A) and children (type C) boots: the innovative mechanical Anti Friction Slider (AFS) automatically adjusts to the boot sole height, compensating A/C standards as well as height differences due to icing up, dirt or boot wear (Pict.05).

Pict. 05

If you want to increase the stability of your junior binding in combination with children (type C) boots, e.g. for junior racing, you can replace the standard AFS with a vertically blocked AFS (Art. No.162962), which is for children (type C) boots ONLY.

All you have to do is to separate the standard slider from the base plate (Pict.06).

Pict. 06

Afterwards you can simply click in the spare slider (Pict.07).

Pict. 07

ADJUSTING THE RELEASE VALUES

The release values of the toe and heel should be determined by height and body weight (ISO/ASTM) method. Set the binding accordingly with the adjustment screws at heel and toe unit. ELAN recommends adjusting these settings with a manual screwdriver. Do NOT use a screw shooter. We also recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).

8. FUNCTION CHECK

ENTRY/EXIT: Check to make sure that the boot does not catch on the heel hold down lug.

BRAKE: press the brake pedal (1) down by hand. The brake arms (2) must automatically return to the braking position when the treadle is released (Pict.08).

Pict. 08

LATERAL ELASTICITY OF THE TOE

Press the boot laterally outward. The binding must re-center the boot easily and quickly from a 10mm lateral displacement.

9. FINAL CHECK

- Has the proper mounting point been selected?
- Functional brake test passed?
- Have all screws been fastened tightly?
- Has the forward pressure been properly set?
- Are the release values of the toe and the heel properly determined and set?
- Is the instruction for use booklet ready to be handed over to the consumer?

Drill Template RACEPLATE 09

Drill Template Art. No. 162902

1. COMPATIBILITY

Presently the drill template RACEPLATE 09 can be used for:

EP 14 WC	EP 11.5 DUO

Drill template RACEPLATE 09 is for mounting of both EP 14 WC (RDX) and EP 11.5 DUO (Junior). It can be used for ski widths from 59mm to 108mm. For other skis use the template adapter set (Art. No. 162569). With this adapter set, you can mount skis from 45mm to 132mm.

All Elan plates have predrilled holes!

The following chart shows which ELAN bases and plates are suitable for the different ski-groups (G1-G4).

MODEL	G1	G2	G3	G4
EP 14 WC 290 - 350 mm	X	0	0	0
EP 14 WC 260 - 320 mm	X	X	0	0
EP 11.5 DUO	X	X	0	0

X … compatible 0 … not compatible

If bases and plates are mounted on other ski groups, the penetration depth and the torque moment of the screws have to be verified.

2. POSITIONING THE DRILL TEMPLATE

Open the clamping jaws (3) by rotating the clamping handles (1) and then place the template on the ski. Align the boot midsole indicator (2) for the appropriate model with the midsole mounting mark on the ski. Be sure the template is evenly seated against the ski's top surface.

Release clamping handles.

Pict. 01

NOTE: Keep in mind that some ski manufacturers do not use the center of boot sole location method. Always follow the ski manufacturer's instructions.

3. DRILLING THE HOLES

If not otherwise specified by the ski manufacturer use a Ø4.1x9.0mm drill bit for EP 14 WC (RDX), as it comes with 8mm penetration screws.

For EP 11.5 DUO (Junior), with 6 mm penetration screws use the Ø 4.1 x 7.0mm drill bit, if not otherwise recommended.

DRILL THROUGH THE APPROPRIATE BUSHINGS

PLATE POSSITION	Color of indicator
EP 14 WC 290 - 350 mm	SILVER
EP 14 WC 260 - 320 mm	GOLD
EP 11.5 DUO	RED

After drilling place a drop of glue into the holes. It lubricates the screws and seals the holes (Pict.02).

Pict. 02

4. MOUNTING – EP 14 WC (RDX)

4.1 MOUNTING - PLATE:

Place a washer on the outer outside holes and tighten the screws (4x) (Pict.03).

Pict. 03

Place a washer also on the outer center hole.

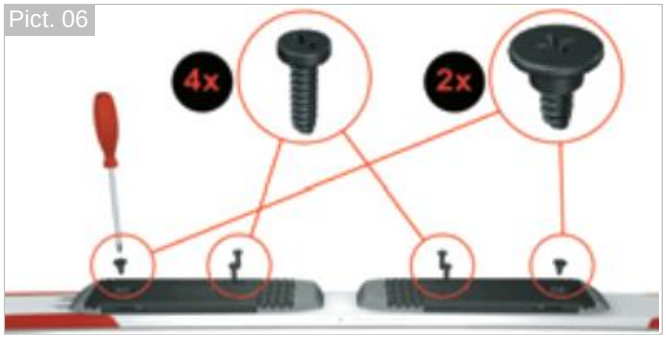
Pict. 04

Then you can place the front and the rear part over the screws and push it in the appropriate position. Make sure that the washer stays in its position.

Pict. 05

To fix the plate, just tighten the screws.

Pict. 06



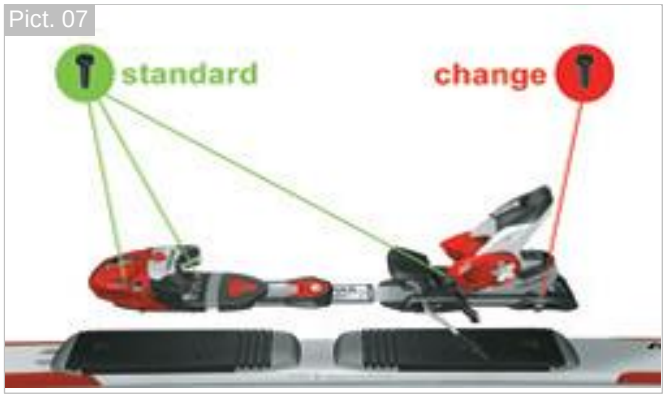
4.2 MOUNTING - BINDING ON EP 14 WC (RDX):

Before mounting the binding on RACEPLATES please check the boot sole range scale on the plate.

NOTE: Use only the pre-drilled holes for installation – do not drill holes into the plate to mount bindings of other manufacturers.

Change the screws of the standard rear heel according to the mounted binding!!! The screws come in the box with race bindings (all ER models)!

Pict. 07



Pict. 08

Other than those, the mounting is similar to the method described in the chapter Drill Template 92 W & FAT.

5. MOUNTING - RACEPLATE JUNIOR

5.1 MOUNTING – PLATE EP 11.5 DUO:

The compatible binding-plate combinations can be found in the Technical Manual, chapter Binding/Plate Coordination Line.

Place the front part of the plate over the holes and fasten the screws. Then place the back part over the holes and fasten the screws.

Pict. 09

5.2 MOUNTING - BINDINGS ON EP 11.5 DUO

For mounting junior bindings on ELAN PLATES you have to replace the pre-mounted screws by screws with 8 mm penetration depth. Only with these screws can we guarantee the right pullout strength.

NOTE: Use only the pre-drilled holes for installation – do not drill holes into the plate to mount bindings of other manufacturers.

Determine the boot sole length with the Rental boot caliper and place the binding on the Plate corresponding to the appropriate printed length markings.

Pict. 10

Mount the binding in accordance to the procedures specified in this manual.

Mounting instruction FUSION^4 bindings

1. COMPATIBILITY

Presently the Fusion 4 system plates can be used for next bindings:

ELX 14.0 Fusion	ELX 12.0 Fusion
ELX 12.0 Fusion Wide 88	ELX 11.0 Fusion
EL 11.0 Fusion	EL 10.0 Fusion
ELW 11.0 Fusion	ELW 10.0 Fusion

Fusion 4 system replaced the old Fusion 2 system in season 12/13. **Systems are not compatible!** All Fusion 4 plates are pre-mounted on skis.

2. FIRST INSTALLATION

Open the toe-lever and slide the toe on the rail from the front.

Pict. 01

Slide the toe towards tail. At certain point the toe will stop, then release the laver and push it into the end position.

Pict. 02

Now hook the brake into the heel housing.

Pict. 03

Open the heel-lever (forward pressure indicator) and slide the heel on the rail from the tail.

Pict. 04

Slide the heel towards tip. At certain point the binding will stop.

Pict. 05

Then release the laver and push it into the end position.

Pict. 06

3. ADJUSTING BOOT SOLE LENGTH:

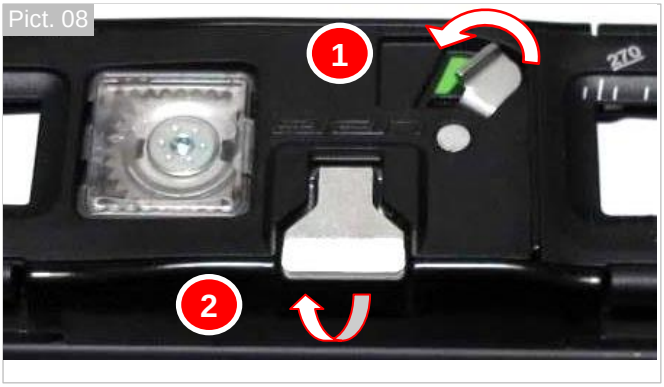
Make sure that the boot is satisfying the international standards and has no functional damage. Take the binding parts out of the box and follow the steps on the instruction leaflet. Determine the boot sole length with the rental caliper (Art. No. 162617).

Pict. 07

Once the bindings are mounted onto a ski it is very easy to adjust it to desiderate boot sole length (Pict.9).

First open the safety lever (1) of the fusion central mechanism. Keeping the safety lever open, now open (pull up) the (second) locking lever (2) and release them both. Both levers must stay in open position so that bindings are released!

Pict. 08

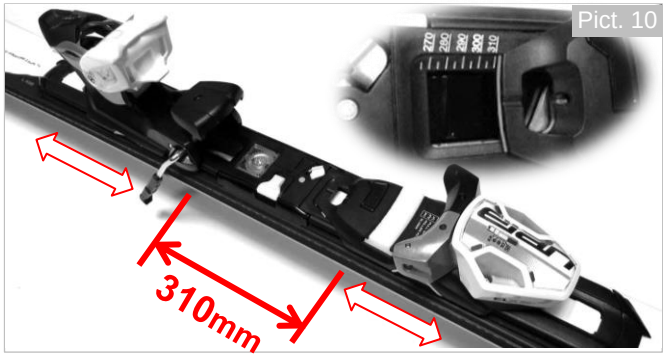


DO NOT USE TOOLS like a screwdriver to perform this operation!

Pict. 09

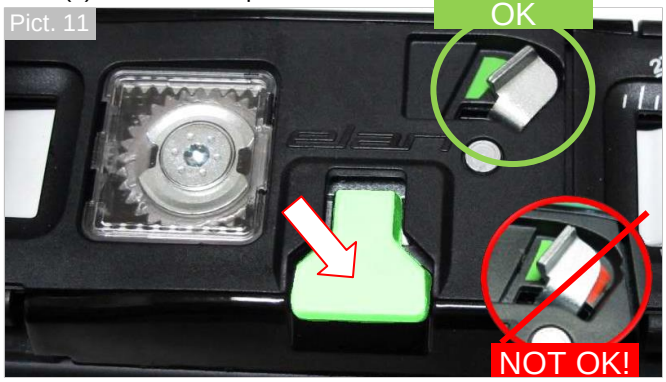
Slide bindings to the desiderate length mark located at the toe.

Pict. 10



Lock the central locking system by pushing down the lock lever (2) back to close position.

Pict. 11



Check once again if levers (1) and (2) are in locked position!

Pict. 12

Finally, check the forward pressure, by placing a boot into the binding. If you have followed all steps correctly, the indicator should rest in the marked area.

Pict. 13

If you have too much or not enough forward pressure, check the settings and if necessary, adjust slightly. Then close the levers and check the forward pressure again. Now it should be okay.

4. ADJUSTMENT OF THE RELEASE VALUES

The release values at toe and heel should be determined by height and body weight (ISO/ASTM) method. Set the binding accordingly with the adjustment screws. We recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).

NOTE: Release/ Retention settings above a release moment of 100Nm at the toe and 425Nm at the heel are higher than the international standards recommend and are used solely at the skier's own risk!

5. FUNCTION CHECK

Check the function of the heel. Make sure that the boot does not catch on the heel during entry and exit. Check the brake function by pressing down the brake pedal (1) by hand. The brake arms (2) must open to the braking position when the brake pedal is released (see Pict 15)

Pict. 14

Check the elasticity and retention of the toe by pushing the boot inward and outward. The binding must re-center the boot easily and quickly from a 15mm lateral displacement.

6. FINAL CHECK

- Is the proper mounting point selected?
- Functional brake test passed?
- Is the forward pressure properly adjusted?
- Are the release values of toe and the heel properly determined and set?
- Is the Instruction for use booklet ready to be handed over to the customer?

Mounting instruction QT Adult bindings

1. COMPATIBILITY

Presently the QuickTrick Adult plate can be used for next bindings:

EL 10.0 QT	EL 10.0 QT WB90

QT Adult plate is suited for boot sole lengths from 260 to 380 mm. All ELAN's QuickTrick Adult plates are pre-mounted on skis!

2. FIRST INSTALLATION

Make sure that the boot is satisfying the international standards and has no functional damage. Determine the boot sole length with the rental caliper (Art. No. 162617).

Pict. 01

Open the toe-lever and slide the toe on the rail from the front. Lock at the appropriate boot sole length and close the lever.

Pict. 02

Now hook the brake into the heel housing.

Pict. 03

Then open the heel lever, slide the heel on the rail from the back and lock it at the appropriate boot sole marking. Don't forget to check that the lever is closed again.

Pict. 04

Finally, check the forward pressure, by placing a boot into the binding. If you have followed all steps correctly, the indicator should rest in the marked area.

Pict. 05

If you have too much or not enough forward pressure, check the settings and if necessary, adjust slightly at the heel and the toe. Then close the levers and check the forward pressure again. Now it should be okay.

Pict. 06

3. ADAPTATION:

Once the binding is mounted onto a ski it is very easy to adjust it to another boot sole length. Just open the levers and slide toe and heel to the desired length mark.
Finally close the levers and check forward pressure as described before.

4. ADJUSTMENT OF THE RELEASE VALUES

The release values at toe and heel should be determined by height and body weight (ISO/ASTM) method. Set the binding accordingly with the adjustment screws. We recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).
NOTE: Release/ Retention settings above a release moment of 100Nm at the toe and 425Nm at the heel are higher than the international standards recommend and are used solely at the skier's own risk!

5. FUNCTION CHECK

Check the function of the heel. Make sure that the boot does not catch on the heel during entry and exit. Check the brake function by pressing down the brake pedal (1) by hand. The brake arms (2) must open to the braking position when the brake pedal is released (see pict.07).

Pict. 07

Check the elasticity and retention of the toe by pushing the boot inward and outward. The binding must re-center the boot easily and quickly from a 15mm lateral displacement.

6. FINAL CHECK

- Is the proper mounting point selected?
- Functional brake test passed?
- Is the forward pressure properly adjusted?
- Are the release values of toe and the heel properly determined and set?
- Is the Instruction for use booklet ready to be handed over to the customer?

Mounting instruction QT Junior & Lady

1. COMPATIBILITY

ELAN offers two types of plates, the QuickTrick TMD base and QuickTrick SnapIN base:

Plate	Size	Boot Sole Length (mm)
QuickTrick TMD	S: M: L:	199-283 239-323 263-347
QuickTrick SnapIN	XS/S: S/M: M/L:	195-263 225-293 255-323

All ELAN's QuickTrick plates are pre-mounted on skis!

Presently the QuickTrick plates can be used for next bindings:

ELW 9.0 QT	EL 7.5 AC QT
EL 7.5 AC QT WB 90	EL 4.5 AC QT
EL 4.5 AC QT WB 84	

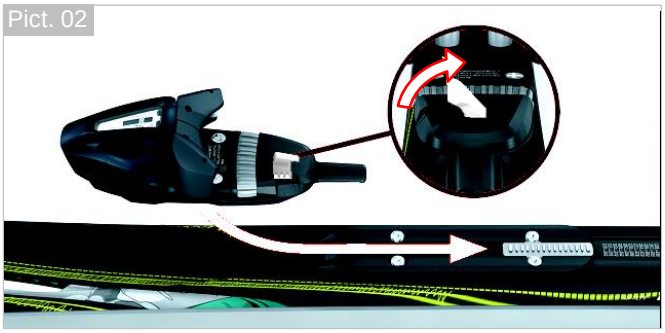
2. MOUNTING - BINDINGS

Make sure that the boot meets the international standards and is free of any functional damage. Take the binding parts out of the box and follow the steps on the instruction leaflet. Determine the boot sole length with the rental boot indicator (Pict.01), (Art. no. 162 617).

Pict. 01

First you have to open the toe-lever and slide the toe on the rail from the front (Pict.02).

Pict. 02



Lock at the appropriate boot sole length and close the lever.

Pict. 03

Now hook the brake into the heel housing.

Pict. 04

Then you can open the lever and slide the heel on the rail from the back!

Pict. 05

Simply lock it at the appropriate boot sole marking by closing the lever.

Pict. 06

Finally, check the forward pressure, by placing a boot into the binding. If you have followed all steps correctly, the indicator should rest in the marked area (Pict.07).

Pict. 07

If you have too much or not enough forward pressure, check the settings at first. If necessary, adjust slightly at the heel and the toe (Pict.08). Then check the forward pressure again.

Pict. 08

3. AFS JUNIOR ON DIN 7.5 AC & DIN 4.5 AC MODELS

The SX Junior Line is suitable for both adult (type A) and children (type C) boots: the innovative mechanical Anti Friction Slider (AFS) automatically adjusts to the boot sole height, compensating A/C standards as well as height differences due to icing up, dirt or boot wear. (Pict.09)

Pict. 09

If you want to increase the stability of your junior binding in combination with children (type C) boots, you can replace the standard AFS with a vertically blocked AFS (Art. No.162962), which is for children (type C) boots ONLY.

All you have to do is to separate the standard slider from the base plate (Pict.10).

Pict. 10

Afterwards you can simply click in the spare slider.

Pict. 11

4. ADJUSTMENT OF THE RELEASE VALUES

The release values at toe and heel should be determined by the height and body weight (ISO/ ASTM) method. Set the binding accordingly with the adjustment screws. We recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).

NOTE: Release/ Retention settings above a release moment of 100Nm at the toe and 425Nm at the heel are higher than the international standards recommend and are used solely at the skier's own risk!

5. FUNCTION CHECK

Check the function of the heel. Make sure that the boot does not catch on the heel during entry and exit. Check the brake function by pressing down the brake pedal (1) by hand. The brake arms (2) must open to the braking position when the brake pedal is released (see Pict.12).

Pict. 12

Check the elasticity and retention of the toe by pushing the boot inward and outward. The binding must re-center the boot easily and quickly from a 15mm lateral displacement (EL 7.5 AC, EL 4.5 AC - 10mm).

6. FINAL CHECK

- Is the proper mounting point selected?
- Functional brake test passed?
- Is the forward pressure properly adjusted?
- Are the release values of the toe and the heel properly determined and set?
- Is the Instruction for use booklet ready to be handed over to the customer?

Drill Template SP 2003 W & SP 2003 FAT

SP 2003 W Art. No. 162763
for ski widths from 59 to 108 mm

SP 2003 FAT Art. No. 162879
for ski widths from 104 to 154 mm

1. COMPATIBILITY

Drill templates SP 2003 W and SP 2003 FAT are used for ESP-models:

ESP 13.0	**ESP 10.0**
ESP 7.5 AC	**ESP 4.5 AC**

All ELAN adult bindings come with 8mm penetration screws and can be used with skis, group G1 & G2. The junior binding ESP 7.5 is delivered with 6mm penetration screws for skis, groups G3 & G4. If it is mounted on skis, groups G1 & G2, or on ELAN Plates, replace them with longer screws (see chapter Spare Parts Handling). ESP 4.5 comes with 6mm penetration screws and is only for skis, group G3 & G4.

Drill Template SP 2003 W can be used for ski widths from 59mm to 108mm, the drill template SP 2003 FAT for ski widths from 104mm to 154mm. For other skis use the template adapter set (Art. No. 162569). With this adapter set, you can mount skis from 45mm to 132mm with the standard SP 2003 W drill template, as well as skis from 90mm to 178mm with drill template SP 2003 FAT.

NOTE: The standard brake for all ESP bindings, except the ESP 4.5, is the POWER BRAKE LD 78, which can be used for skis up to 78 mm.

The standard brake for the ESP 4.5 AC is the SX KID BRAKE 74, which can be used for skis up to 74mm, for wider skis use the SX KID BRAKE wide 84 which is for skis from 74 to 84mm.

There are different types of brakes. Refer to the brake overview on page 33 for brake and binding compatibility. The description of the brakes always includes a number and a color-letter code. This number stands for the maximum ski width in the brake area and not in the ski center! The color letter code defines the brake segment.

2. POSITIONING THE DRILL TEMPLATE

Open the clamping jaws (3) by rotating the clamping handles (1) and then place template correctly on the ski. Align the boot midsole indicator (2) for the appropriate binding model or ELAN Plates with the midsole mounting mark on the ski. Be sure the template is evenly seated against the ski's top surface. Release clamping handles (1) and attaches the template firmly to the ski.

NOTE: Some ski manufactures do not use the center of boot sole location method. Always follow the ski manufacturer's instructions.

3. DRILLING THE HOLES

ELAN skis: refer to the Drill Bit chart on page 8.

Other skis: If not otherwise specified by the ski manufacturer, for all ESP adult models use a Ø 4,1 x 9,0mm - drill bit for skis, group G1 & G2. For ESP 7.5 and ESP 4.5 use a Ø 4.1 x 7.0mm – drill bit for skis, group G3& G4.

If ESP 7.5 is mounted on skis, group G1 & G2 use a Ø 4.1 x 9,0mm drill bit and replace the screws with longer ones. If mounted on ELAN Plates replace the screws with longer ones.

Drill through the appropriate bushings:

Model	Color of Bushing
ESP 13.0	Yellow
ESP 10.0	Yellow
ESP 7.5	White
ESP 4.5	Red
EP plates	Black

If required, tap the hole. After drilling place a drop of glue into the holes. It lubricates the screws and seals the holes (Pict.01)

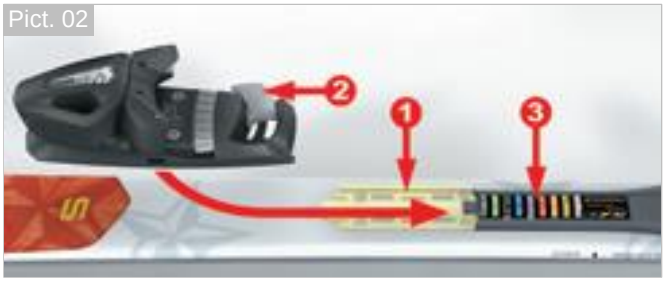
Pict. 01

4. MOUNTING

4.1 MOUNTING THE TOE

Connect the plastic mid-section (3) with the metal toe track (1). Place the assembled toe track (1) over the holes and drive the 4 (four) screws. Open the hand lever (2) and slide the toe piece on from the front. Adjust the toe piece to the desired SINGLE CODE position and close the hand lever (2) (Pict.02)

Pict. 02



Make sure that the lever snaps in place completely (it may be necessary to slide the toe forwards and backwards slightly).

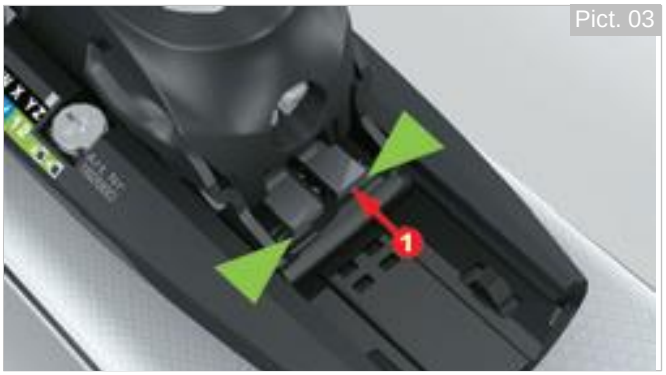
4.2 MOUNTING THE HEEL

Place the heel unit with its brake, guide and track over the holes. Tighten the screws in an X-pattern.

5. FORWARD PRESSURE CONTROL

Place a suitable reference boot in the binding using the SINGLE CODE for length adjustment and close it. Then check the indicator (see Pict.03) (1) located at the rear end of the heel piece. With boot inserted the pointer should rest in the marked area.

Pict. 03



6. ADJUSTMENT

FOR ALL MODELS: Find adjustment ranges and some handling hints in the section “SynPro/SymRent“ of the Technical Manual.
Take at least one reference boot satisfying all standards and free of functional damages to perform test adjustments with the binding.

6.1 USING THE SINGLE CODE

Adjust toe and heel to the corresponding alpha-setting (SINGLE CODE) of the ski boot (Pict.04).

Pict. 04

IF A BOOT OF UNKNOWN SIZE IS USED PROCEED AS FOLLOWS:

Place the boot in the toe cup. Slide the heel piece forward until it just touches the boot. Close the binding and check the forward pressure.

6.2 ADJUSTING THE RELEASE VALUES

The release values at toe and heel should be determined by height and body weight (ISO/ASTM) method. Set the binding accordingly with the adjustment screws. We recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).

NOTE: Release/retention settings above a release moment of 100Nm at the toe and 425Nm at the heel are higher than the international standards recommend and are used solely at the skiers own risk!

7. FUNCTION CHECK

Before the newly mounted ski equipment is exposed for rental use please perform a complete functional check.

NOTE: In some countries (USA) rental equipment has to pass a Pre-Season Test (See the Rental section of this manual).

EASY ENTRY AND EXIT: If set properly the boot should not catch on the sole hold-down of the heel as it opens and closes.

BRAKE: Press the step- on plate (1) down by hand. The brake arms (2) must close and open automatically to the braking position when the step-on plate is released (Pict.05).

Pict. 05

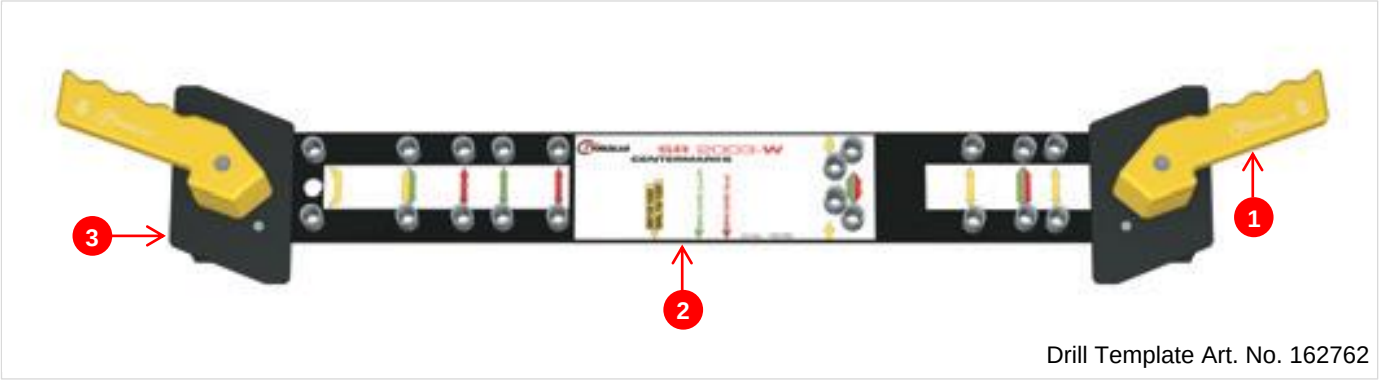
LATERAL ELASTICITY OF THE TOE

Press the boot laterally outward. The binding must re-center the boot easily and quickly from a 15mm lateral displacement (Model SP 7.5 AC and SP 4.5 AC – 10mm).

8. FINAL CHECK

- Has the proper mounting point been selected?
- Have all screws been fastened tightly?
- Has the forward pressure setting been controlled?
- Has at least one full adjustment been made using a representative reference boot including Release- / Retention setting and momentum test?
- Has the functional check been passed successfully?

Drill Template SR 2003 W



Drill Template Art. No. 162762

1. COMPATIBILITY

Drill templates SR 2003 W are used for ESR-models:

ESR 10.0

All ELAN adult bindings come with 8mm penetration screws and can be used with skis, group G1 & G2.

Drill template SR 2003 W can be used for ski widths from 59 to 108mm. For other skis use the template adapter set (Art. No. 162569). With this adapter set ski widths from 45 to 132mm can be mounted.

NOTE: The standard brake for all ESR 10.0 bindings is the POWER BRAKE LD 78, which can be used for skis up to 78 mm. ELAN offers different types of brakes. Refer to the brake overview on page 33 for brake and binding compatibility.

The description of the brakes always includes a number and a color-letter code. This number stands for the maximum ski width in the brake area and not in the ski center! The color letter code defines the brake segment.

2. POSITIONING THE DRILL TEMPLATE

Open the clamping jaws (3) by rotating the clamping handles (1) and then place template correctly on the ski. Align the boot midsole indicator (2) for the appropriate binding model or ELAN Plates with the midsole mounting mark on the ski. Be sure the template is evenly seated against the ski's top surface.

Release clamping handles (1) and attaches the template firmly to the ski.

NOTE: Some ski manufactures do not use the center of boot sole location method. Always follow the ski manufacturer's instructions.

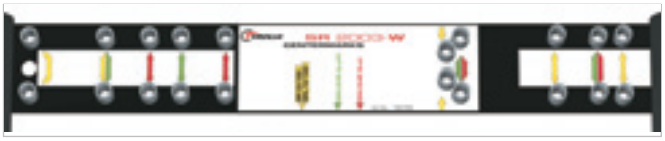
3. DRILLING THE HOLES

For ELAN skis: Refer to the Drill Bit chart on page 8.

If not otherwise specified use an Ø 4.1 x 9.0mm drill bit for skis, groups G1 & G2.

Drill through the appropriate bushings:

Model	Color of Bushing
ESP 10.0	Yellow



If required, tap the hole. After drilling place a drop of glue into the holes. It lubricates the screws and seals the holes (Pict.01)

Pict. 01

4. MOUNTING

4.1 MOUNTING THE TOE

Place toe piece on the prepared holes and drive the screws.

4.2 MOUNTING THE HEEL

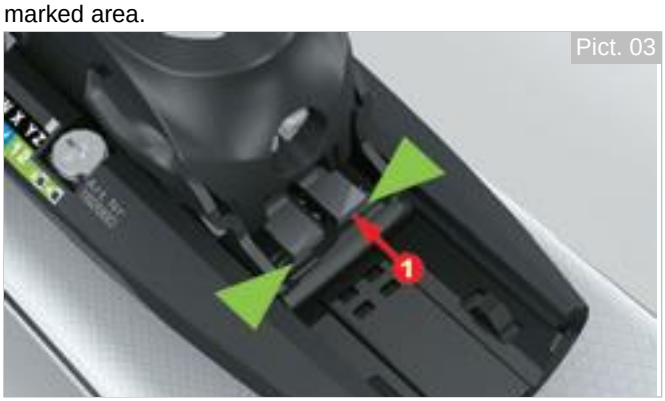
Place the heel unit with its brake, guide and track over the holes. Tighten the screws in an X-pattern.

Pict. 02

5. FORWARD PRESSURE CONTROL

Place a suitable reference boot in the binding using the SINGLE CODE for length adjustment and close it. Then check the indicator (see Pict.03) (1) located at the rear end of the heel piece. With boot inserted the pointer should rest in the marked area.

Pict. 03



NOTE: If the forward pressure is not correct, readjust the boot sole length and check the SINGLE CODE. Please make sure that no boot is placed in the binding during adjusting!

6. ADJUSTMENT

FOR ALL MODELS: Find adjustment ranges and some handling hints in the section “SynPro/SymRent“ of the Technical Manual.
Take at least one reference boot satisfying all standards and free of functional damages to perform test adjustments with the binding.

6.1 USING THE SINGLE CODE

Adjust toe and heel to the corresponding alpha-setting (SINGLE CODE) of the ski boot (Pict.04).

Pict. 04

IF A BOOT OF UNKNOWN SIZE IS USED PROCEED AS FOLLOWS:

Place the boot in the toe cup. Slide the heel piece forward until it just touches the boot. Close the binding and check the forward pressure.

6.2 ADJUSTING THE RELEASE VALUES

The release values of the toe and heel should be determined by height and body weight (ISO/ASTM) method. Set the binding accordingly with the adjustment screws at heel and toe unit. ELAN recommends adjusting these settings with a manual screwdriver. Do NOT use a screw shooter. We also recommend the use of a calibrated testing device and that you keep a written record of whether the system passes or fails (requirement in the US).

NOTE: Release/retention settings above a release moment of 100Nm at the toe and 425Nm at the heel are higher than the international standards recommend and are used solely at the skiers own risk!

7. FUNCTION CHECK

Before the newly mounted ski equipment is exposed for rental use please perform a complete functional check.

NOTE: In some countries (USA) rental equipment has to pass a Pre-Season Test (See the Rental section of this manual).

EASY ENTRY AND EXIT: If set properly the boot should not catch on the sole hold-down of the heel as it opens and closes.

BRAKE: Press the step- on plate (1) down by hand. The brake arms (2) must close and open automatically to the braking position when the step-on plate is released (Pict.05).

LATERAL ELASTICITY OF THE TOE

Press the boot laterally outward. The binding must re-center the boot easily and quickly from a 15mm lateral displacement.

8. FINAL CHECK

- Has the proper mounting point been selected?
- Have all screws been fastened tightly?
- Has the forward pressure setting been controlled?
- Has at least one full adjustment been made using a representative reference boot including Release-Retention setting and momentum test?
- Has the functional check been passed successfully?

Mounting ELAN Bindings on Plates 15/16

All ELAN PLATES are pre-mounted on ELAN skis and they have holes to mount on bindings.

1. COMPATIBILITY

All listed ELAN (screw on) binding can be mounted on ELAN plates in next way:

RETAIL:

ER 17.0 FreeFlex Pro ER 11.0 FreeFlex Pro ER 11.0 Attack 18 (X) Attack 16 Attack 13 Attack 11 EFS 10.0 EL 10.0 EL 7.5 AC	EP 14.0 WC EP 9.0+ EP 9.0 EP 11.5 DUO EP 11 X
EL 4.5 AC	NO plate

RENTAL:

ESP 10.0 ESP 7.5 AC	EP 9.0+ EP 9.0
ESP 4.5 AC	NO plate
ESR 10.0	EP 9.0

2. MOUNTING BINDINGS ON PLATES

All ELAN binding and plate combinations accord to chart on the next page with ELAN skis are possible with the standard brake.

For mounting junior bindings on ELAN plates, you have to replace the pre-mounted screws by screws of 8 mm penetration depth. The right pullout strength can only be ensured with these screws.

NOTE: Use only the pre-drilled holes for installation – do not drill holes into the plate to mount bindings of other manufacturers.

Determine the boot sole length with the Boot indicator and place the binding on the plate corresponding to the appropriate printed length markings (Pict.01 and 02).

Pict. 01

Mount the binding in accordance with the procedures in this manual.

Pict. 02

MOUNTING ELAN BINDINGS ON RAISED PLATFORMS:

Please note the ELAN brake-matrix on the next page. There you will find a classification of all our brakes depending on stand height and weight. A brake is permitted, if the combination of stand height and weight hits the sector under the relevant curve. If not the brake has to be changed by a stronger one of a higher category.

At all current ELAN ski sets with plate-systems the included brakes fit these requirements.

If you are combining ELAN bindings and plates with product of other manufacturer please check the technical requirements of the ski – plate – binding – combination at the ELAN brake matrix on page 67.

There you will find out, if the desired combination of ski-plate-binding is accepted or if you need to exchange the brake.

FOLLOW THE PROCEDURE BELOW:

1. Add the weight of the components you want to mount (ski + plate + binding).
2. Add the thickness of the components you want to mount (ski + plate + binding).
3. Using the list below, determine which ELAN brakes are standard on the bindings delivered.
4. Find the value on the vertical axis which corresponds to the sum of the addition for the stand height.
5. Follow the horizontal axis on the matrix to the right until you find the value which corresponds to the total weight on the horizontal axis.
6. If the point of intersection of the weight and stand height lies below the respective curve, the brake will function properly.
7. If the point of intersection lies above the curve the brake must be replaced with the next stronger one.
8. If the point of intersection lies above the highest curve this combination of ski + binding + plate is not recommended. In this case, you have the following possibilities to come within the permitted range:
   a) Reduce the total thickness through:
      a. a thinner plate,
      b. an ELAN binding with less stand height
   b) Reduce the total weight to
      a. a lighter plate, e. g. a
      b. an ELAN binding with less weight,
      c. a lighter ski.
   c) Use a combination of a) + b).

Have a look at all technical specifications about ELAN bindings and plates in chapter “Technical Information” (page 22 and following) – this will help you in finding an accepted combination.

3. Mounting Junior Bindings on Plates and on Skis, group (G1&G2)

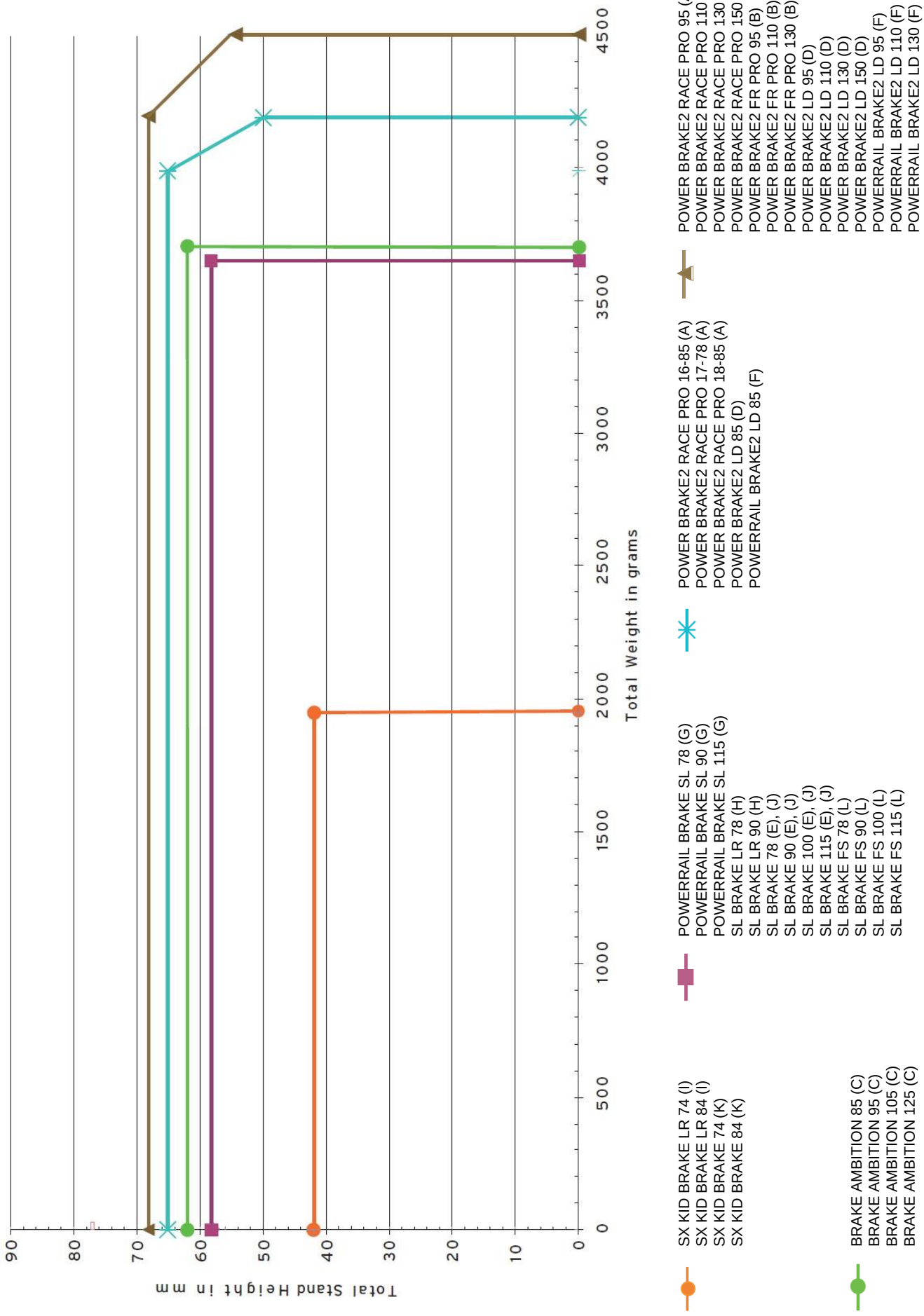
For mounting these bindings on plates or on skis, group G1&G2, replace the pre-mounted screws by 8 mm penetration depth screws – see chapter Spare Parts Handling on page 31. Only with these screws we can guarantee the right pullout strength!

Binding/Plate Coordination Line 2015/16

	EP 14.0 WC (Raceplate RDX)	EP 9.0+	EP 9.0	EP 11.5 DUO	EP 11 X
Height:	14mm	9mm	9mm	11,5mm	12/10mm
Mounting range:	258-372mm	258-372mm	258-372mm	238-342mm	260-342mm
Mounting range (EL):	261-363mm	261-363mm	261-363mm	241-353mm	263-353mm
BINDINGS	**STAND HEIGHT (mm)**				
ER 20.0 (X) FreeFlex EVO ER 16.0 (X) FreeFlex EVO	**32.0**	☒	☒	☒	☒
ER 17.0 FreeFlex Pro	**33.0**	**28.0**	**28.0**	**30.5**	**29.0**
Attack 18 (X) Attack 16 Attack 13	**31.0**	**26.0**	**26.0**	**25.5**	**27.0**
Attack 11 ER 11.0 FreeFlex Pro ER 11.0 EFS 10.0 EL 10.0 EL 7.5	**35.0**	**30.0**	**30.0**	**32.5**	**31,.0**
ESP 10.0 ESP 7.5 AC	☒	**40.5**	**40.5**	☒	☒
ESR 10.0	☒	☒	**31,5**	☒	☒
EL 4.5 AC ESP 4.5	☒	☒	☒	☒	☒

Note: ☒ ... non compatible; System Bindings (Fusion, QT), Adrenalin, Ambition

ELAN Brake Matrix 2015/16



Boot-Handling and Testing

1. VISUAL INSPECTION OF SKIBOOTS

In assembling a system for the skier, it is the responsibility of the shop to inspect and evaluate each equipment component. This inspection checklist should be followed before any mounting or adjusting is performed.

Ideally, they should be posted and used on the sales floor while the customer is still in the shop so that any deficiencies can be explained on the spot.

In retail, boots must pass all four points of this inspection before being accepted for use. In rental, this inspection is the first step in the “preseason boot test procedure”.

1.1 CHECK TYPE, SIZE AND OVERALL CONDITIONS

- Is the performance level appropriate for the skier?
- Is the size correct (SINGLE CODE, boot sole length)?
- Is all hardware intact and in working order?
- Is the boot free of excessive or asymmetric wear?
- Is the boot free of dirt or sole warp?

1.2 CHECK MATERIAL

- Binding contact surfaces require a high quality hard, low-friction material. Check both lower shell and any separately attached inserts.
- If you can easily scratch the surface of the sole with your fingernail, that’s an indication of extremely soft material that can degrade system performance.

1.3 CHECK CONDITION OF BINDING CONTACT SURFACES, TOE AND HEEL

- Any scratches or other roughness should not be deeper than 1 mm.
- Check for any rocks, gum, or other foreign matter stuck to the sole.

1.4 VERIFY BOOT SOLE DIMENSIONS

- Ski boots must meet international standard specifications.
- Use the Boot Rental Indicator to determine whether wear is excessive. The most critical dimension for ELAN bindings is the front surface and height of the boot toe. Any boots worn past the indicated amounts should be repaired or not used with ELAN bindings.

Adult norm “A”:

Pict. 01

Children norm “C”:

Pict. 02

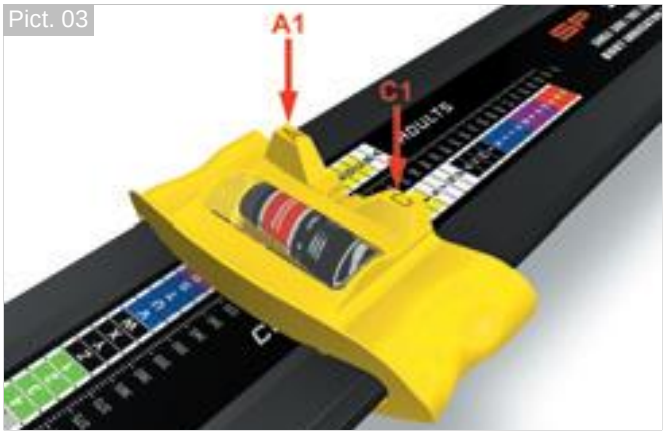
2. BOOT INDICATOR (Art. Nr. 162 617)

This rental boot device is a multifunction-tool:

1. Sole length: Put the boot in the device and slide the toe stop up to the boot toe.

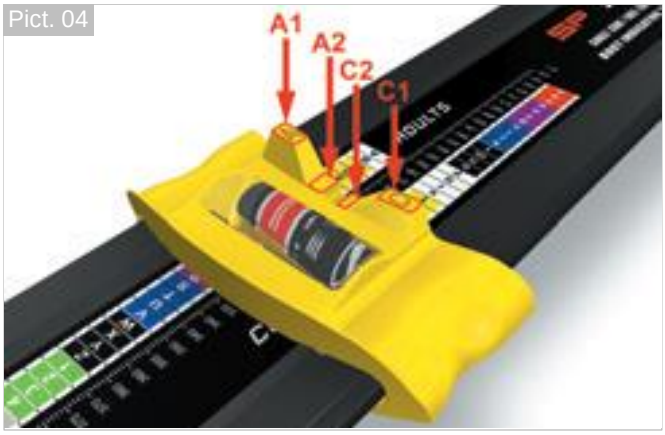
Read sole length in the window, used for ELAN rental bindings: the SINGLE CODE (see Pict.03).

Pict. 03



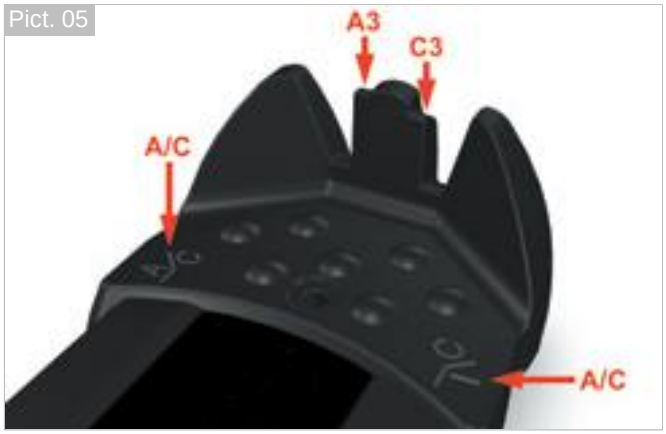
2. Boot sole wear: The standardized interfaces (contact boot sole with sole lugs) are important in the functioning of ELAN bindings.
3. Boot toe bottom: Excessive wear is indicated if the lower edge of the front surface is at or above the bottom step on the appropriate child (C 2) or adult (A 2) post (see Pict.04).
4. Boot toe ledge height: With the toe stop against the boot toe, the level of the toe ledge should be at or above the top of the appropriate post, “Child” (C 1) or “Adult” (A1) (see Pict.04). Replace toe pads if worn.

Pict. 04



5. Heel height and wear: Check this boot standard with the same procedure used for the toe. The heel posts (A 3 + C 3) are located at the rear of the device (see Pict.05).
6. The marks “A/C” help to select a “Child” boot from an “Adult” by indicating the standardized sole width.

Pict. 05



NOTE:

Any boot which passes points 3, 4 and 5, as well as conforming to the Visual Inspection Checklist, may be accepted for use with ELAN bindings.

Boots which fail any point should be repaired or replaced.

These checks apply only to boots used with ELAN bindings. Consult other binding manufacturers for their used boot specifications.

3. CLEAN VS. LUBRICATED SKI BOOT TEST

This test is designed to determine the influence of a given boot on the release characteristic of a binding. It should be performed on boots not meeting all the points of the ELAN boot visual inspection criteria, or if measured release values fall outside the system “inspection” tolerance. It is seen as the “last chance” for a boot to qualify before getting eliminated from inventory.

1. Clean the boot(s) to be tested with soap and water. Allow to dry.
2. Select an appropriate ELAN “reference” binding that has displayed release values within the inspection tolerance on the ELAN Adjustment Chart. Clean the binding’s boot contact surfaces with soap and water and allow drying.
3. Test the binding and boot in Twist and Forward Lean at a mid-scale indicator value (Only one direction of twist is required).
4. In a further test run lubricate all boot/binding contact areas with soapy water. Retest in Twist and Forward Lean.
5. Results of each lubricated test should be within 20% of the corresponding results when tested clean. Any boot which fails this test should not be used with an ELAN binding.

Maintenance & Service

1. VISUAL INSPECTION OF BINDING

In assembling a system for the skier, it is the responsibility of the shop to inspect and evaluate each equipment component. This inspection checklist should be followed before any mounting or adjusting is performed. Ideally, they should be posted and used on the sales floor while the customer is still in the shop so that any deficiencies can be explained on the spot.

2. CHECK SUITABILITY

- Is the binding model appropriate for the skier's ability?
- The binding must be compatible with the customer's boot/ski.
- The skier's release/retention setting should fall within the binding's adjustment range. Additionally, we recommend that the skier's setting not be closer than one number from the minimum or maximum settings on the binding in order to allow for future readjustment.
- Are the mounting screw lengths appropriate for the ski being used?

3. CHECK THE CONDITION OF BINDING

- Are all parts present and in working order?
- Is the AFD surface smooth and secure?
  If not, it should be replaced.
- Are all mounting screws present or tight?
- Does the binding show signs of contamination?
- Has proper periodic lubrication been performed?
  Dried out or corroded bindings can function improperly.

4. RETAIL TESTING

Completion and documentation of the following Retail Test Procedures is recommended for U.S.: required under the terms of the ELAN Dealer Indemnity Program.

These tests should be conducted any time work is performed on a ski/boot/binding system that may affect its release values. The procedure applies to all ELAN alpine bindings, new as well as used.

1. Follow ELAN procedures for inspection, mounting, adjustment, and maintenance as appropriate.
2. Confirm that toe and heel indicator values match those specified on the actual ELAN Adjustment Chart.
3. Using a calibrated testing device, according to its instructions for use, "exercise" the binding by releasing it at least once in each direction (clock-wise and counter clockwise at the toe, vertically at the heel). Then measure Twist and Forward Lean Torque Values. The middle quantitative value of 3 releases in each direction should be used as the test result.
4. Compare Twist and Forward Lean test results with the System Inspection Ranges on the actual ELAN Adjustment Chart.
5. If any test results fall outside the System Inspection Range, consult ELAN Troubleshooting Procedures which follow this section.
6. With testing complete, the ELAN Certified Mechanic must complete and sign the workshop ticket. Be sure the Final Indicator Settings are correctly shown there.

The workshop ticket should simply reflect that the system has "passed all tests" or that "all manufacturers' procedures have been completed".

5. REPLACING THE BRAKE

If the brake feels too hard or blocks during the hand test, if the brake arms are damaged, if the pedal is worn out or if a wider brake is necessary then the brake should be replaced immediately.

ELAN offers different brakes for almost every binding. Refer to the brake line on page 33 for brake and binding compatibility.

To change the brake, all you have to do is to unscrew the old brake and replace it with the proper brake previously selected for the binding. In order to fix the brake, tighten the screws.

On most FUSION and QUICKTRICK bindings, the brake is hooked into the heel housing and not fixed with screws. Slide the heel off from the rails and replace the brake (Pict.01).

Pict. 01

6. REPLACING THE GLIDE INSERTS

FUSION and QUICKTRICK BINDINGS

To provide unaffected long-term performance of the new FUSION and QUICKTRICK binding models, the toe and heel guides can be exchanged or retrofitted. These features ensure that steady function is guaranteed, even after massive use in rental.

Art.No. – 162950 Play Compensator PR TOE ABS

Art.No. – 162955 Play Compensator PR TOE AFS

Art.No. – 162951 Play compensator PR HEEL

To change the inserts just slide toe and heel off the rails and replace them with new ones (Pict.02).

Lubricate the new inserts with grease, clean the track, and slide toe and heel back in its original position on the rails.

Pict. 02

HEEL INSERTS:

FOR RACE PRO HEEL

Open the heel locking lever and pull off the heel backwards. Remove the inserts and mount the new ones –
Art. No. 162803 (Pict.03).

Lubricate the new inserts with grease, clean the heel track, and slide the heel back into the track. Lock the locking lever into the same position it was before.

Pict. 03

7. LONG & SHORT SCREWS

Junior Bindings (DIN 7 or 7.5) are delivered with screws for skis, groups G3 & G4 (penetration depth 6 mm). If they are mounted on skis, groups G1 & G2 then the screws have to be replaced with longer screws (penetration depth 8 mm).

8. TAPPING

ELAN recommends tapping the drilled binding holes of any ski before mounting. Of course, there is a never ending discussion among the mechanics if this is really necessary. But the pros are convincing:

- smooth and easy mounting
- reduced risk of stripping a screw
- same momentum adjustment of the screwdriver regardless of the ski material
- increased mounting quality/precision
- fewer pull outs

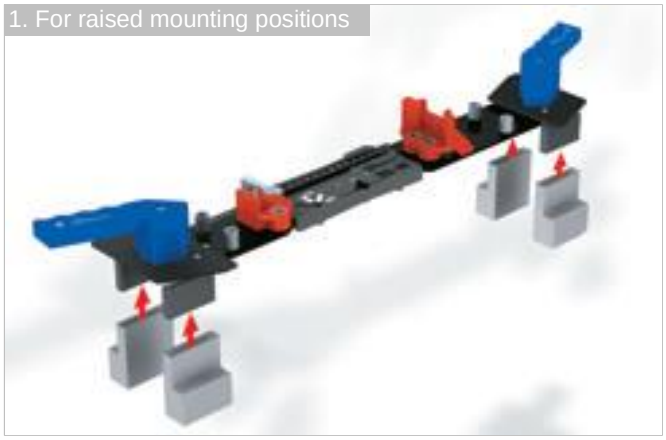
9. TEMPLATE ”ADAPTER SET“

Adapter Set is compatible to all Templates. By using the template Adapter Set (Art. No. 162569) the mounting range of your template can be adapted depending on how you position the adapters on the drill template.

WARNING: Avoid dropping of the template. The clamping jaws could be damaged.

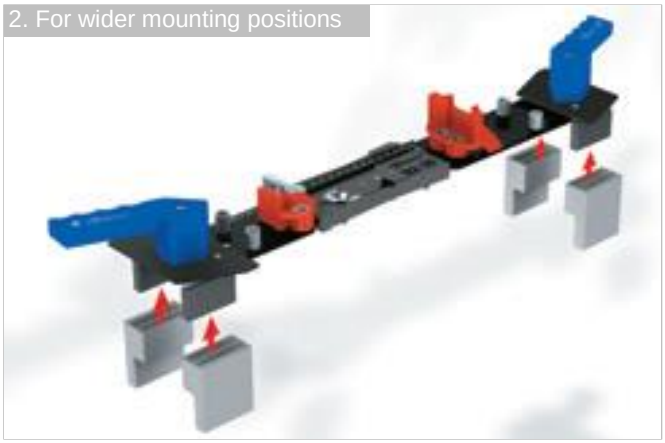
YOU HAVE 3 POSSIBLE OPTIONS:

1. For raised mounting positions



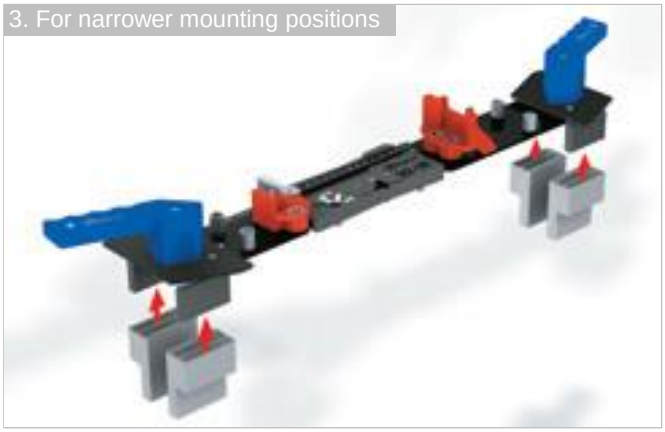
Standard Drill Template (59-108 mm)	FAT Drill Template (104-154 mm)	Ambition & Adrenalin Drill Template (75-125 mm)
50-99 mm	95-145 mm	66-116 mm

2. For wider mounting positions



Standard Drill Template (59-108 mm)	FAT Drill Template (104-154 mm)	Ambition & Adrenalin Drill Template (75-125 mm)
83-132 mm	128-178 mm	99-149 mm

3. For narrower mounting positions



Standard Drill Template (59-108 mm)	FAT Drill Template (104-154 mm)	Ambition & Adrenalin Drill Template (75-125 mm)
45-94 mm	90-140 mm	61-111 mm

10. RACING (X)-BINDINGS

Certain binding models are produced by ELAN each year for the exclusive use of qualified competitors under the supervision of ELAN Technical Specialists.

These bindings are not covered by either the ELAN Warranty or any Dealer Indemnity Program. We recommend you decline to service them, and warn against their use.

DIN settings over 10 do not satisfy the standard. Protection assertions are not applicable. Adjustments exceeding this range are made on one’s own risk.

11. CLEANING AND LUBRICATING

Ski bindings need regular maintenance. Proper function is no longer assured if this procedure is not followed periodically.

- Please use only ELAN recommended lubrication:
  Tyrolia grease – 160052
  Tyrolia service grease spray – 162779
  Both have the same content, but the grease tube is for more precise lubrication and the spray is suited for spots which are hard to reach with the tube.
- Clean the surfaces with a dry rag or warm water and mild soap.
- Avoid any contact with aggressive solvents or degreasers!
- Don’t use cleansers!

- High pressure cleaning is not recommended. It might have the negative side effect of washing away the lubricating films.

11.1 LUBRICATING THE TOE PIECE

AERO TOES

- Lubricate the adjustment screw and the guides of the main spring in the housing with the Tyrolia service – grease spray.

ALL SYMPRO/ESP TOES

- In case of friction in the track system: Mark the toe position, open the ESP hand lever and slide the toe piece off.
- Dry clean the track and the toe guide base gently using a plastic brush.
- Then lubricate the locking mechanism at both sides of the toe guide base.
- Lubricate also both sides of the track guide over the entire length.

Pict. 04

11.2 LUBRICATING THE HEEL

ALL RENTAL BINDINGS

- Mark heel position, open the hand lever and slide the heel off backwards. At the ESR 10 the guide lock has to be opened with a screwdriver (Pict.05) to get the binding off.

Pict. 05

LUBRICATE

- the edge of the release cam under the heel lug as shown in Pict.06.

Pict. 06

• Both sides of the heel track (inside) over the entire length.
• Bearings of the opened hand lever on both sides (Pict.07).

Pict. 07

- The guiding channel of the release setting adjustment screw.

After finishing the heel lubrication slide on the heel and lock it in its original position.

11.3 BINDING ESP 4.5 AC

LUBRICATE

- The contact areas between housing and the release cam on the front side and the backside as shown in Pict.08 and 09.
- Both sides of the heel track (inside) over the entire length.

Pict. 08

- The guiding channel of the release setting adjustment screw (Pict.09).

Pict. 09

After finishing the heel lubrication slide on the heel and lock it in its original position.

11.4 NOT TO BE LUBRICATED

The locking element and the corresponding holes in the heel track should be cleaned but not lubricated. This should prevent dirt accumulation in this area, which could interfere with the ease of handling.

12. TEST YOUR DRILL TEMPLATE

A worn or damaged drill template could create a lot of trouble. Please check your templates periodically:

1. Position the fully extended drill template on a discarded ski.
2. Turn the clamping lever to open the clamping jaws of the mounting template.
3. Position the template properly on the ski so that the boot center marking is aligned with the mounting point described on the ski.
4. Let go of the clamping lever. The template clamps automatically.
5. Drill all the holes.
6. Remove the mounting template and clean the ski.
7. Measure the holes with a slide gauge.
8. The distance of the screw holes to the edge of the ski must be equal for each pair of related holes. The deviation must not be more than 1mm.
9. Repeat the test, if greater deviations occur.
10. The mounting template must be discarded if greater deviations occur again!

13. REPAIR OF DAMAGED MOUNTING HOLES OR BROKEN SCREWS

For repairing damaged holes, we suggest our special “Repair Set” – Art. No. 162 127.

It consists of a hollow drill bit and plastic inserts (Pict.10).

Pict. 10

You can extract broken screws too. Remove the binding from the ski.

Drill with the hollow drill through the bushing of the appropriate drill template and drive in the plastic insert. Mount the binding again (Pict.11).

Pict. 11

14. SEALING OLD MOUNTING HOLES

For sealing old holes you can use wood-plugs or plastic plugs (art. no. 160857), if not otherwise specified by the ski manufacturer.

Pict. 12

Troubleshooting (Including Rental)

Problem	Possible Reason	Solution
Difficulty when stepping in	Non-standard boot sole	Test and select a new boot
	Forward pressure too high	Readjust according to instructions
	Brake jams	Clean & lubricate; replace
Brake does not retract	Obstruction under the brake	Remove, clean, lubricate
	Brake arm bent	Replace brake
	Ski obstructs brake	Replace the standard brake with a wider brake, according to the ski width.
Boot fails pre-season test	Low-quality boot material	Replace boot
	Excessive wear or contamination	Clean, repair or replace boot
	Reference binding worn	Recheck reference binding with a boot that has passed
	Boot does not meet ISO 5355	Replace boot
	Improper use of testing device	Check calibration and operating technique
Excessive in-season class 1 or class 2 deviations	Excessive boot sole wear or contamination	Clean, repair or replace boot
	Inadequate binding service/lubrication	Conduct recommended maintenance every 15–20 days of use
	Improper use of testing device	Check calibration and operating technique
	Indicator correction factor needed	Test system according to pre-season testing. Define indicator correction factor for subsequent adjustments
SINGLE CODE on binding interferes with SINGLE CODE on boot	Incorrect template adjustment used when mounting	Set template to proper length and remount heel
	Incorrect track guide scale chosen for given mounting position	Choose binding according to given mounting position
SYMPRO toe wobbles in this track	Toe locking lever not properly engaged in locking holes	Remove toe, clean track. Be sure toe piece locks into place
FREEFLEXdrill pattern not fitting	Toe / equalizing bridge in wrong position	Dismount, place toe in correct position
	Drill template not locked	Readjust, drill new holes
Heel slides backwards when customer steps in	Rear locking lever not fully closed or boot length exceeds adjustment range	Lever should fully engage locking teeth in slots on track or boot sole length exceeds binding range
Binding fails pre-season test: release values too high or too low	Reference boot contaminated or worn	Clean or replace boot as indicated by clean vs. lube test result
	Forward pressure set incorrectly	Readjust to ELAN recommendations
	Incorrect or off-center-mounting	Check the template. Remount using template correctly
	Improper use of testing device	Check calibration and operating technique
Adult boot sole does not fit into Junior toe lug	Boot sole exceeds the standard tolerance	Clean AFD and boot sole, check standard tolerance, change boot
RACE PRO or POWERRAIL heel wobbles in the track	Heel glide inserts worn	Remove heel and replace plastic heel guides

CLASSIFY YOURSELF

DETERMINING YOUR SKIER TYPE IS YOUR RESPONSIBILITY!

Your Skier Type, height, weight, age and boot sole length are used by the shop technician to determine the release/retention settings for your bindings. Consult these descriptions to select your classification. Be sure to provide accurate information. Errors increase your risk of injury.

TYPE I

Cautious skiing on smooth slopes of gentle to moderate pitch.

Skiers who designate themselves as Type I receive lower than average release/retention settings. This corresponds to an increased risk of inadvertent binding release in order to gain releasability in a fall. This type also applies to entry level skiers uncertain of their classification.

Skiers not classified as Types I or III

TYPE II

Skiers who designate themselves as Type II receive average release/retention settings appropriate for most recreational skiing.

TYPE III

Fast skiing on slopes of moderate to steep pitch.

Skiers who designate themselves as Type III receive higher than average release/retention settings. This corresponds to decreased releasability in a fall in order to gain a decreased risk of inadvertent binding release. Type III settings should not be used by skiers of less than 22 kg/48 lbs.

If you are unsatisfied with the release/retention settings that result from your classification please mention this to your binding technician.

NOTE:

If the skier reports release/retention problems see the chapter “trouble shooting release/retention problems”, page 74 in the manual.

Skiers who desire release/retention settings lower than Type I may designate themselves (I-). Type (I-) is inappropriate for skiers 17 kg/38 lbs or less. Type (I-): Move up the table one skier code.

Skiers who desire release/retention settings higher than Type III may designate themselves (III+). Type III+: Move down the table three skier codes.

Skiers may select skier type designations that are different for twist and forward lean. In such a case, the selection shall be indicated by a slash separating twist and forward lean selections, in that order (for example, K/L, K for the toe and L for the heel).

RELEASE/RETENTION Adjustment Table

NOTE: The initial indicator values found in this table are only the starting point in the binding setting process. The initial values may need to be modified in order to achieve the correct measured release values.

					mm							
					1	2	3	4	5	6	7	8
					SINGLE CODE							
kg (lbs)	cm (ft 'in")	SKIER CODE	Mz (Nm)	My (Nm)	a-i	j-n	o-s/B	t/C-G	H-L	M-Q	R-V	V-6
					≤230	231-250	251-270	271-290	291-310	311-330	331-350	≥351
			5[a]	18[a]								
10-13 kg (22-29 lbs)		A	8	29	0,75	0,75	0,75					
14-17 kg (30-38 lbs)		B	11	40	1,00	0,75	0,75	0,75				
18-21 kg (39-47 lbs)		C	14	52	1,50	1,25	1,25	1,00				
22-25 kg (48-56 lbs)		D	17	64	2,00	1,75	1,50	1,50	1,25			
26-30 kg (57-66 lbs)		E	20	75	2,50	2,25	2,00	1,75	1,50	1,50		
31-35 kg (67-78 lbs)		F	23	87	3,00	2,75	2,50	2,25	2,00	1,75	1,75	
36-41 kg (79-91 lbs)		G	27	102		3,50	3,00	2,75	2,50	2,25	2,00	
42-48 kg (92-107 lbs)	≤ 148 cm (≤ 4'10")	H	31	120			3,50	3,00	3,00	2,75	2,50	
49-57 kg (108-125 lbs)	149-157 cm (4'11"-5'1")	I	37	141			4,50	4,00	3,50	3,50	3,00	
58-66 kg (126-147 lbs)	158-166 cm (5'2"-5'5")	J	43	165			5,50	5,00	4,50	4,00	3,50	3,00
67-78 kg (148-174 lbs)	167-178 cm (5'6"-5'10")	K	50	194			6,50	6,00	5,50	5,00	4,50	4,00
79-94 kg (175-209 lbs)	179-194 cm (5'11"-6'4")	L	58	229			7,50	7,00	6,50	6,00	5,50	5,00
≥ 95 kg (≥ 210 lbs)	≥ 195 cm (≥ 6'5")	M	67	271				8,50	8,00	7,00	6,50	6,00
		N	78	320				10,00	9,50	8,50	8,00	7,50
		O	91	380				11,50	11,00	10,00	9,50	9,00
			105	452						12,00	11,00	10,50
			121	520								
			137[b]	588[b]								

a....Lowermost tolerance limit
b....Uppermost tolerance limit

HOW TO USE THE RELEASE/ RETENTION ADJUSTMENT TABLE:

1. Determine the Skier Code by locating the skier's weight in the first column and the skier's height in the second column. If the height and weight are not on the same line select the Skier Code closer to the top of the chart.

2 a. The Skier Code found in step 1 is for Type I skiers. For Type II skiers move down the chart toward the bottom one Skier Code. For Type III skiers move down two Skier Codes (see page 75).

2 b. If the skier is age 50 or older or under 10 move up the chart one Skier Code toward the top. For skiers 13 kg/ 29 lbs and under, no further correction is required.

3. Find the column that corresponds to the skier's boot sole measurement in millimeters.
4. The value where the Skier Code and the boot sole measurement intersect is the initial indicator setting for the skier.

   If the intersection of the row and column falls in a blank box, do not move up or down the chart. Move sideways on the same row to the nearest box showing a visual indicator setting.
5. This value should be recorded on the workshop form under Initial Indicator Settings.

RELEASE/RETENTION

1. MECHANICAL SYSTEM TESTING

1. Adjust the bindings toe and heel indicators to the Initial Indicator Setting.
2. Use a calibrated torque measuring device according to the instructions provided by the supplier.
3. Test that binding by releasing it at least once in all directions.
4. Three tests are required in each direction. The middle quantitative value of the three releases should be used as the test result.
5. Using the previously determined Skier Code slide across the chart to the column representing twist torque reference values.
6. If the test result is within one torque value above to one torque value below the reference value, it is in the Inspection Range. These results are acceptable and no further adjustment is necessary.
7. If the test result is within two torque values above to two torque values below the reference value, it is in the In-Use Range. The indicator value should be readjusted and the system retested so that it falls in the Inspection Range. Record the corrected indicator value in the box for final release/retention settings.
8. If the test result value falls out of the In-Use Range the system should be thoroughly inspected for the following:
   a) Correct forward pressure
   b) Correct Sole-hold down adjustment
   c) Worn or contaminated AFD's
   d) Out of standard boot soles

   No work can be performed on the system until these problems are corrected.
9. Check the heel for forward lean the same way, determining the middle quantitative value of three vertical releases. Adjust if necessary.
10. Record final indicator settings on the workshop form in the area for final release/retention settings.

2. RELEASE/RETENTION Troubleshooting

2.1 IF THE SKIER REPORTS A RELEASE OR RETENTION PROBLEM:

- Re-inspect the equipment to make sure that all components are in good condition and function properly.
- Test the system to make sure that it is calibrated properly.
- Have the skier use the "Classify Yourself" materials to make certain that the correct Skier Type has been selected.

If component inspections and a calibration check do not reveal a problem the skier may be requesting discretionary settings.

2.2 INFORMATION FOR SKIERS REQUESTING DISCRETIONARY SETTINGS

1. Your normal release/retention settings comply with ISO/ASTM standards. Although these guidelines may be inappropriate for some types of competitive skiing or competition training, they are believed to provide an effective compromise between the release and retention needs of most recreational skiers.
2. Adhering to these guidelines may help to reduce the risk of injuries resulting from improper release/retention setting selection. However, skiing involves inherent risks. Injury can result from simply falling down; impact with an object, or from many other actions. Many injuries are unrelated to the function of the release system. Furthermore, even a properly adjusted binding cannot protect the skier in all situations.
3. Difficulties with release or retention may be unrelated to release/retention settings and can result from your skiing style, the incompatibility of your boots and bindings, or wear, damage, or contamination of a component of the release system. Be sure to describe your circumstances to the shop technician and to authorize recommended inspections and repairs before proceeding.
4. If you have been dissatisfied with the release/retention settings that result from your normal skier classification, you may wish to consider changing your skier classification, or designating skier type classifications that are different for twist and forward lean. You may even request discretionary release/retention settings that are outside of your setting range. If you believe that you require higher release/retention settings but are unsure if the increase should be applied to twist or forward lean settings, request that the increase be applied to forward lean settings before experimenting with higher twist settings. Similarly if you believe that you require lower release/retention settings but are unsure if the decrease should be applied to twist or forward lean settings, request that the decrease be applied to twist settings before experimenting with lower forward lean settings.

   Lower settings correspond to an increase in the risk of inadvertent binding release in order to gain increased releasability in a fall.

   Higher settings correspond to a decrease in releasability in a fall in order to gain a decreased risk of inadvertent binding release.
5. Although the shop technician may help you to record your choice on the appropriate form, the final decision on your release/retention settings is yours.

SYMPRO-SYMRENT on the Shop Floor

PREPARING AND CHECKING RENTAL SYSTEMS

Customers usually don't treat rental equipment as gently and carefully as they would handle their private property. In order to keep your rental fleet as functional and appealing as possible, a systematic maintenance program is a must. The best results are obtained with an ongoing program which constantly checks boots, bindings and skis.

SINGLE CODING

This enables a quick boot and binding coordination even during the rush hours of rental business.

ELAN offers self-adhesive color stickers (art. no. 162561) with the SINGLE CODE to be applied before season. You simply check the boot's SINGLE CODE and adjust the binding accordingly.

In order to gain the efficiencies of ESP, all you need to do is follow our simple procedure.

1. Mount all bindings accordingly to the ELAN ESP procedures. Pick a mounted sample binding of each model.
2. Place a boot of each size in the binding and adjust forward pressure until correct.
3. Open the heel and remove boot.
4. Record the SINGLE CODE from the track that corresponds to the mark on the side of the heel housing. (The boot must not be in the binding when you read the code.)
5. Check each code again before marking all boots of this size with their SINGLE CODE (pict below)!

"SINGLE CODE" sticker set Art. no. 162 561

For this procedure the ELAN Rental Boot Indicator (Art. Nr. 162 617) can be used.

Pict. 01

RENTAL INSPECTION SUMMARY

Since it is impractical to perform a full inspection each time a system is rented, a routine of preseason and in-season inspections has been developed to verify release indicator accuracy, confirm correct equipment function, and assure proper assembly and adjustment procedures by the rental shop staff.

Fully implemented, the procedures that follow provide rental shop customers a standard of care equivalent to that provided retail shop customers under current ISO and ASTM standards.

The program is based on standards:

ISO 13993 and ASTM F1064.

PRE-SEASON INSPECTION

Preseason inspections are performed on components of the release system: bindings and boots.

All rental bindings, new and used, are visually inspected, and then tested using specially selected Reference Boots. Bindings that fail go through a troubleshooting procedure (see page 74) to identify and correct the deviation or malfunction. If this procedure does not correct the problem, the binding is removed from inventory. All rental boots, new and used, are visually inspected for damage, wear, contamination, broken or missing parts, or inferior materials at contact points with the binding. In addition, one boot per "cell" is tested for boots that are new to the rental inventory. A cell is all boots of the same make, model, age, and shell size. A random selection of 5% of all boots, previously accepted into inventory, is also tested. Tests are performed with a test device and a pair of specially selected reference bindings. If a boot fails, all boots from that cell are then tested. Boots that fail and cannot be repaired are removed from inventory.

INSEASON INSPECTION

In season inspection are performed on complete rental systems to ensure that the equipment is adjusted appropriately and continues to function correctly. Typically 5% of the rental inventory is tested during each two weeks sampling period. The random sample is equally divided between equipment that is available for rental and equipment that has just been rented. The equipment in the "as rented" category is from real skiers in the condition in which it is either dispatched or returned, while the "available for rental" equipment may be set up for fictitious skiers. Only single skis, not pairs, are tested, and testing at the toe is only required in one direction. A count is maintained of test results which exceed allowable limits. The magnitude and frequency of these deviations determines the frequency of future inspections. Shops which fail an inspection must sample daily until source of the problem is found and corrected. Then, as inspection results improve, the frequency of sampling and inspection is relaxed.

INSPECTION PROCEDURES

IMPORTANT TERMS

Correction Factor: The value that must be added or subtracted from the initial visual indicator setting to bring the result within the Inspection Tolerance (or Inspection Range).

Directions of Release: Unless otherwise specified (see In season Inspection), the directions of release to be tested are forward lean in clockwise and counter clockwise in twist.

Test Device: A device which meets ISO standard 11110 or ASTM standard F1061 and has been checked and maintained in the manner specified by the device manufacturer.

Test Result or Release Torque: The middle quantitative value of three tests made in the same direction.

PRE-SEASON TEST

Reference Boot Selection

The Reference Boot is a boot of a designated sole length which is otherwise typical of the boot inventory. Use the procedure below if the boot inventory includes several models and a representative boot cannot be easily identified.

1. Select five single boots with sole lengths as specified in Table [A] for the binding type to be tested: adult, junior, or child.
2. Clean all five boots with a mild detergent and water.
3. Adjust a rental binding to the release indicator setting specified in Table [A] for the binding type.
4. Fit the binding to the boot and determine the Release Torque in all three directions of release (forward lean and both directions in twist-three releases in each direction).
5. Average the Release Torque for CW (clockwise) and CCW (counter clockwise) twist release.
6. Reject and replace any boot with a CW to CCW difference of more than 6Nm for adult boots or 4 Nm when testing child boot types.
7. Rank the five twist results and select as the Reference Boot for twist, the middle boot.
8. Rank the five forward lean results and select as the Reference Boot for forward lean, the middle boot.

PRE-SEASON BINDING INSPECTION

The procedure that follows is an integral part of preseason maintenance. It is also a good way to determine if maintenance and which units have outlived their usefulness and must be removed from inventory.

1. Clean areas of the bindings that contact the boot and perform all preseason binding maintenance.
2. Visually or manually check:
   a) AFD condition.
   b) Brakes function.
   c) Release indicator readability and travel.
   d) Screw tightness.
3. Adjust each binding with the reference boot and then adjust the release value indicators to the specified value found in table [A].
4. Check that the heel track and toe track Single Code agree with the sole length Single Code of the reference Boot.

Skier Code	Binding Type	Sole length mm	Release Indicator	Reference Torque Twist Nm	Reference Torque Forward Nm	Twist Inspection Range Nm	Forward Inspection Range Nm	Twist In-Use Range Nm	Forward In-Use Range Nm
F	Children	260mm	2.5	23Nm	87Nm	20-27Nm	75–102 Nm	17-31Nm	64-120Nm
J	Junior	300mm	4.5	43 Nm	165Nm	37-50Nm	141-194Nm	31-58Nm	120-229Nm
L	Adult	320mm	6.0	58 Nm	229Nm	50-67Nm	194-271Nm	43-78Nm	167-320Nm

Table [A] Preseason Binding Inspection

5. With the Reference Boot in the binding, verify elastic travel of the toe piece by striking the boot toe with a mallet or dead hammer and checking that the toe piece returns the boot quickly and completely to center.
6. Verify elastic travel of the heel piece by lifting the boot while depressing the heel piece cocking lever and checking that the heel piece returns the boot quickly and completely to the latched position.
7. Manually release the binding 3 times in each direction.
8. Lubricate all boot/binding interfaces with a mild liquid detergent and water solution.
9. With the Ski Binding Test Device determine the Release Torque for each direction of release (forward lean and both directions in twist).
10. Record “PASS” in the binding’s maintenance record if Test Results are within the Inspection Range provided in Table [A].
11. Set the ski aside if the Test result in any release directions is outside the Inspection Range in Table [A].
12. Follow Troubleshooting Procedure on page 74 for units which have been set aside and retest if changes in the unit’s condition or adjustment are made.
13. Record “FAIL” in the binding’s maintenance record if, after troubleshooting, test results in any direction of release are outside the In-Use Range. Replace the “failed” unit and retest before returning the ski to service.
14. If after troubleshooting, Test Results are outside the Inspection Range, but within the In-Use Range, apply a Correction Factor to the unit and note the Correction Factor for that unit in the binding’s maintenance record.
15. If many bindings fail, check the test device and reinsert the Reference Boot. If necessary, select another boot and retest the bindings.

PRE-SEASON BOOT PREPARATION

The procedure that follows is an integral part of pre-season maintenance.

1. Clean all boots with a mild detergent and water, and repair or replace damaged or missing parts.
2. Visually check:
   a) Conformance with ISO and other applicable standards ISO 5355. If the boot contacts the binding, brake, or AFD in areas other than the designated contact points, it may be incompatible with the binding.
   b) Boot material. If the sole at the contact points with the binding or AFD can be scratched with a finger nail, the boot may be of inferior quality and incompatible with the binding.
   c) Boot sole condition. If the boot sole is damaged, worn, or contaminated at contact points with the binding or AFD in a manner which cannot be corrected, the boot may be incompatible with the binding, “Verify boot sole dimensions”.
   d) Brake compatibility with sole.
   e) Rubber and/or metal sole protectors. If such materials contact the binding or AFD, the boot may be incompatible with the binding.
   f) Mold flashings. Flashing which can be seen or felt at contact points with the binding, brake, or AFD must be carefully removed.
3. Remove from inventory all boots that have failed the visual check.

PRE-SEASON BOOT SAMPLING

Although sampling eliminates the need to test every boot before the season starts, the sample chosen must be representative of the inventory.

1. For boots those are new to inventory or have never been inspected, take a single boot from each cell

   (a cell is all boots of the same make, model, year, and shell size).
2. For used boots, take a 5% (but not less than 16 or more than 80) random sample of the entire inventory, see Table [B]. Make sure that there is at least one boot from each cell in the sample.

PRE-SEASON BOOT INSPECTION

The procedure that follows helps to assure boot/ binding compatibility and boot interchange ability.

NOTE: when using Table [A], in the Boot Inspection procedures that follow, the Sole Length and release Indicator Setting columns should be ignored.

1. Randomly select a pair of bindings that have passed the preseason inspection from each binding type; adult, junior, child.
2. Lubricate all boot/binding contact points with a mild liquid detergent.
3. Without regard to whether the boot is new or used, sort the sample by sole type and length according to the

20mm Sole Length Categories defined by the Release/Retention Adjustment Chart.

4. In each Sole Length Category rank the boots by sole length and select the middle boot.
5. In each Sole Length Category fit the appropriate reference bindings to this “typical” boot and adjust the two bindings to release as close as practical to the Reference Torque in Table [A]. Use the Reference Torque corresponding to Skier Code [L] for the Adult binding, [J] for Junior binding, and [E] for the Child binding.
6. Rinse the lubricant from one binding and mark it “clean”. Mark the other “lubricated”.
7. Test each boot in the Sole Length Category with the clean Reference Binding and then the lubricated Reference Binding in both twist and forward lean (only one direction in twist is required for the clean binding).
8. Set aside any boots for which the lubricated Test Result is more than 20% less than the clean Test Result in the same direction of release or the lubricated Test Result in any direction of release is outside of the Inspection Range provided in Table [A] for Skier Code used to set up the Reference Binding (L, J, or F).
9. Repeat the visual check on all boots that have been set aside, correct any defects noted, and retest. Remove from inventory boots that fail the retest.
10. Check all other boots from the same cell (make, model, year, and shell size) as those that failed.

NOTE: On completion of the preseason inspection, clean the liquid detergent from equipment and lubricate the binding before returning it to service.

The use of detergent is limited to testing only! For maintenance cleaning please use WATER ONLY!

INSEASON SAMPLING AND INSPECTION

The In-season Inspection is a test of complete systems and all the procedures used by the rental staff to assemble and adjust the system. The program uses random samples of rental inventory taken at routine intervals. Any sampling program that gives every unit of inventory the same chance as every other of being picked is valid.

Sample Frequency

Random sampling is conducted throughout the entire season. Frequency is as follows:

1. After 7 days of operation.
2. If the sample passes the next sampling is taken after another 7 days operation.
3. If two consecutive samples pass, sampling frequency is increased to 14 days.
4. If a sample fails at any time, daily sampling is instituted until two consecutive samples pass, at which point weekly sampling resumes.

Facilities that have an average daily output of fewer than 160 rental skier days/day (averaged on a weekly basis) may adopt an alternate procedure and sample, over the sampling interval, 5% of average daily output, and delay evaluation of the inspection results until a total of 16 sampled units have been accrued. However, if single class II or class III deviation is detected at any time, corrective action should be taken. This alternative method is used with a normal (weekly) or daily sampling schedule but is inappropriate for a reduced schedule.

Sample Size

Sample size is 5% of inventory but not less than 16 nor more than 80 units as noted in Table [B]. Sample size may be based on average daily output if rental output drops below 50% of capacity over the sampling period. The sample is taken at any time during the sampling interval or may be spread over the period. The sample represents both inventory available for rental and equipment in the condition in which it is returned, with an equal number of units drawn of each group. All units within such sample should be selected randomly.

INSEASON INSPECTION

1. Take a random sample of the rental inventory as determined by Table [B] (see next page). Take half the sample from inventory as it is either rented or returned and the remainder from inventory available for rental.
2. The returned samples are tested with the last costumer’s data; the other samples adjust to randomly selected skier data. Consider already applied Correction Factors.
3. Wipe the boot clean and cycle the boot/binding systems at least once in each direction.
4. Test sample units in Twist (one direction only) and Forward Lean.
5. Compare the Test Results with the Inspection Range for the appropriate Skier Code; see ISO 11088 Release / Retention Adjustment Chart (page 76).
6. If the results are within the Inspection Range, one value above to one value below the reference value, the unit passes.
7. If the results are outside Inspection Range but within the In-Use Range, two values above to two values below the reference value, count the unit as a Class I Deviation.
8. If the results are outside the In-Use Range, count the unit as a Class II Deviation.
9. Check elastic travel and visually inspect the ski brake function, interface areas between boot and binding, including AFD, lug height adjustment (if appropriate), and forward pressure. Count any deficiencies as Class I Deviations.
10. If more than the maximum number of Class I Deviations given in Table [B] are found in the sample, or a single Class II Deviation is detected the sample fails and daily sampling must be conducted until the problem which led to the failed sample is found and corrected. See page 74 for Trouble-shooting Procedures following a Failed In season Inspection.
11. Record the date the sample was tested, the number of units tested the number of Class I and Class II Deviations, whether the sample passed or failed and any actions taken. There is no need to record the identity of units tested or actual Test Results.

	Min.								Max.	
Inventory size - pairs	50	100	200	300	400	500	600	700	800	900
Inventory size – units (half pairs)	100	200	400	600	800	1000	1200	1400	1600	1600
Sample Size – units (half pairs)	16	16	20	30	40	50	60	70	80	80
Max. class 1dev.	3	3	4	6	8	10	12	14	16	16

Table [B] Sample Size

RENTAL/DEMO OF PARTIAL SYSTEMS

Many shops rent their customers partial ski equipment systems. Boots only if customers own their own skis with bindings, or skis and bindings if the customers own their own boots.

Additionally some shops utilize on-hill “demo days” as a means by which new products can be tested and evaluated by potential buyers.

In order to offer these skiers the same level of care as that afforded under the preceding procedures, the following guidelines should be used:

RENTAL OF SKIS / BINDINGS ONLY: CUSTOMER - OWNED BOOTS

Although the retail test procedure may be applied in this case, it is often impractical to require actual system testing, especially in on-hill situations. In lieu of retail testing, the following procedures may be employed:

1. The ski/binding system to be rented or demoed should be tested “pre-season” using a boot which passes the ELAN Boot Visual Inspection.
2. The skier’s boot should also pass the Visual Inspection. If any questions exist regarding the quality of the boot, retail-type testing should be used.
3. The binding should be adjusted and its indicators set per current ELAN recommendation.
4. A full record noting appropriate customer information and binding settings should be kept by the individual or organization responsible for the adjustment.
5. After seven days of use, the ski/binding system should be tested according to the In-Season Inspection Procedures previously described.

NOTE: for U.S. and Canada:

Signatures by both the customer and ELAN Certified Mechanic are required on all shop forms to qualify for the ELAN Dealer Indemnify Program.

ELAN Certification Requirements

This section must be read, and thoroughly understood, prior to completion of ELAN's Employee Training Documentation Form and viewing the 2015/16 ELAN Technical Videos.

At ELAN we realize that the quality added to our products in your shop is every bit as important as the quality we build in at the factory. The ELAN Retailer Indemnity program, which includes in depth technical training, is a key element of maintaining consistent quality.

TECHNICAL INFORMATION

Procedures for installation, release/retention adjustment, testing, troubleshooting and record keeping should always be taken from the current season's ELAN Technical Manual.

EMPLOYEE TRAINING

This manual provides a depth of information unprecedented in the industry; it is here to help you fulfill the shop's responsibility to bring new employees to a basic level of competence. It also addresses our desire to provide information specific to selling, installing, and function checking, and maintaining ELAN products. We hope you will use it as part of a well-planned and professional employee training program which goes far beyond properly installing bindings. Done well it will translate into consistent quality and the high level of satisfaction your customers deserve. Look at it as one of the first steps in your Total Quality Management program.

NOTE:

Hands on training is the best training – An ideal task that can be incorporated into the training is preseason testing. This will give your trainees hands on experience operating a testing device and adjusting ski/boot/ binding systems. Other tasks, such as routine rental maintenance, can also be done during the training period.

SHOP REQUIREMENTS

Each retail location must have:

- A current ELAN Authorized Retailer Agreement on file with Alpina Sports Corp. USA / ELAN Sports, Inc. CANADA
- A current ELAN Binding Indemnification Agreement on file with Alpina Sports Corp. USA / ELAN Sports, Inc. CANADA
- At least one ELAN Certified Technician employed per location.
- The required equipment for installing and testing ELAN bindings. All Agreements and Certifications must be valid for the current season.

SERVICE SHOP TOOLS

This list is the bare minimum a shop can survive with.

- Tape Measure
- ELAN (Tyrolia) Templates

Drill template 92 W or FAT (Blue)

Drill template AMBITION (Brown)

Drill template ADRENALIN (White)

Drill template ATTACK DEMO (Turquoise)

Drill template 94 W (Violet)

Drill template RACEPLATE 09 (Black)

Drill template SP 2003 W or FAT (Red)

Drill template SR 2003 W (Yellow)

- Variable speed, reversible electric drill
- Step Drill Bits:

4.1 Ø x 9.0 mm

4.1 Ø x 7.0 mm

3.5 Ø x 9.0 mm

3.5 Ø x 7.0 mm

- Tap, Tap Brace and Tap Guide
- Pozidrive No. 3 screwdriver
- Large slot screwdriver
- Current ELAN retention/release adjustment table
- Approved mechanical testing device
- Screw extractor
- Tap extractor
- Hole plugs, plastic & wood
- Threaded plastic ski inserts
- Chisel
- Hammer

CREATING AN INFORMED CONSUMER

Customers, whether rental or retail, come to your shop with all levels of knowledge. The range extends from true experts who really know the sport and their equipment needs, to never-ever skiers who know they must rely totally on your expertise.

A key role played by a good shop, and a requirement in the U.S. and Canada under the "ELAN Retailer Indemnity Program", is providing information, guidance and instruction to all customers.

SPECIFICALLY THIS MEANS:

- Providing product and suitability information to help customers make an informed choice of which equipment models are right for them. The amount and type of advice given will naturally be different for each customer.
- The shop's responsibility is to be sure that each product sold or serviced is appropriate for the needs of its user.
- The shop must provide accurate information about the nature of the sport, and what equipment can and cannot do. Inform customers that there are risks inherent in the sport of skiing that no binding can protect against. It is imperative that each customer be informed there are limitations to the protection their equipment can afford and that injuries can and do occur in the normal course of skiing.
- Under no circumstances should you make any warranties or assertions about the customer's safety on the hill. Speaking simply, no binding is "absolutely safe". Well-designed shop record forms address the disclosure and agreement subject very directly and professionally. Use them to your advantage by making sure customers read and understand the form before signing it.

  The following points must be explained to all customers (rental or retail) before they leave the shop with their equipment (consumer awareness checklist):
- Go through your workshop ticket and fully explain each task that has been performed by the shop.
- Explain how to use bindings and equipment. Let customers put on their boots and step in and out of the binding if needed.
- Remind skiers to clean their boots and bindings each time before stepping in. Tell them that they should always walk through clean snow before entering the bindings.
- Deliver the "Instructions for Use" booklet to retail customers. It is an important document and is essential for warranty service.
- Advise the customers to return to your shop periodically for maintenance and a system inspection. The service interval is once each 15–20 days of skiing, or annually, whichever comes first.
- Recommend care in transport: heels closed, bindings covered.
- Recommend care in storage: dry, moderate temperature, heels closed, and boots not in bindings.

- Explain that bindings and boots must be kept clean for optimal function.
- Skiers should make a visual inspection of their system before each use, including the AFD pad which should be checked for wear, damage or loss. It is also wise to visually verify the release indicator value.

NOTE:

- The workshop ticket must be read, initialed and signed by the customer. If the customer is a minor, his or her signature should be obtained, along with that of the parent or guardian. If a parent or guardian is not available, the equipment should only be released if the proper signatures have been obtained.
- Remember, the customer's signature is required in two places under the terms of the ELAN Retailer Indemnity Program. In order to avoid misunderstandings with the customer, please inform them of this requirement when equipment is taken in for service.
- If the customer is not the end user, every attempt should be made to make certain all aspects of the system are explained to the user, and to obtain his/her signature on the workshop ticket.

ABOUT TESTING

Testing is required for all ELAN retail and rental systems as specified in this manual. Many consumers view system testing as a valuable service provided by professional shops. They expect their equipment will be properly tested, and are willing to pay for it. On the other hand, some customers may be reluctant to accept any additional costs. They may be especially resistant to charges made by the shop for testing and inspections of equipment which is being serviced. Following are some communication techniques that have been found to be helpful:

- Post your shop's testing policy. A clear statement, prominently displayed, will reassure customers that they're all receiving the same treatment. Consider a text similar to the following:

  "Industry standards have defined shop testing procedures for your ski/boot/binding system. We're proud to offer this service since it is in your best interest. While even the best ski equipment cannot eliminate all risks of injury, we strive to maximize your enjoyment of the sport by verifying the settings and function of your equipment. The extra time and expense of system testing will pay off for you in a better skiing experience."
- Make your service shop a showplace. Place your testing bench in a prominent location. Many customers like to know what kind of work you're doing for them. If you get a question, offer to let the skier watch.
- Proudly display diplomas and certificates received by your mechanics. Make their expertise known to your customers.
- Above all, don't apologize for testing. It's a valuable and necessary service well worth the cost.

ABOUT TESTING DEVICES

ASTM and ISO have defined specifications for ski equipment system testing devices. Only those devices that meet these recognized performance standards should be used to test systems that include ELAN bindings. You should make it the responsibility of your testing device supplier to verify that their device fulfills all ASTM/ISO requirements.

Each device has its own unique features and some will fit your shop's needs better than others. Therefore, we can't recommend a single device as universally "the best".

The following points, however, can be used as a guideline to getting the most out of your choice:

- Training is very important in the use of any device. Read the instructions thoroughly, and practice!
- To insure reproducibility from one technician to another a "Multiple Operator Reproducibility Test" should be performed by all users of the testing device. This simply requires that all technicians join in a "round robin" exercise where each tests the same system with the same test device.

  The goal is to verify that the testing techniques are the same and that all test results are comparable. Speak with your testing device supplier for the details on how to conduct this program.
- Beware of "black box" calculations that may be performed by some electronic testers, the calculations performed to arrive at an indicator value or determine an appropriate Torque Range could be based on old standards. Check the current ELAN Adjustment Chart for applicable values.
- Periodic calibration of these devices is important, and this information should be documented in your shop records.
- Most important, never blindly trust the values given by any test device. This is just one tool to use in your evaluation of a complete release/retention system.

MAINTENANCE

Inform every customer of the simple fact that periodic maintenance is needed. If they don't bring their gear back for regular function checks, it is unreasonable to expect it to work as designed. Studies have shown that binding systems which have not been properly maintained have serious injury rates very much higher than those which have.

Following this simple, logical guideline is the single most effective way to decrease serious injuries dramatically. Have the system serviced by an ELAN certified technician once each 15–20 days of skiing, or annually, whichever comes first.

ELAN Retailer Indemnity Program

Today's equipment may help reduce certain hazards involved in the sport, but the risk of injury remains. The ELAN Retailer Indemnity Program is designed to help formalize service procedures and minimize the risks to both you and your customer.

Under the plan, ELAN will defend and indemnity the Authorized Retailer in bodily injury claims when certain conditions are met, including following all ELAN required procedures.

The program benefits are not without limits, indemnification is not insurance, and it does not eliminate the need for a shop to have adequate insurance of its own.

But, for the shop willing to make the investment in doing a quality job as an assembler of equipment systems from components, it is a key element in their Risk Management plan.

This is only a summary of the ELAN Retailer Indemnify Program; complete requirements are listed in the current ELAN Binding Indemnification Agreement. You should read this Agreement carefully.

Retailer benefits under the terms of the plan are based, in part, on the adequacy of the service work performed by the mechanic.

For this reason, thorough employee training is essential. These manual and technical seminars are presented by ELAN to help define appropriate shop procedures.

It is the responsibility of the ELAN Authorized Retailer to see that all technical and product information materials provided by Alpina Sports Corp. USA / ELAN Sports, Inc. Canada are ordered and available in their shop. This should be done with the aid of your ELAN Representative while placing your ELAN preseason binding order.

Competition bindings are intended only for high level competitors who have special requirements that do not apply to recreational skiers. Any transaction involving competition bindings must include a warning and assumption of risk agreement signed by the skier that acknowledges the increased risk of using this equipment. See the section in this manual regarding Use of Non-Recommended Settings (page 89).

THE ELAN RETAILER INDEMNITY PROGRAM APPLIES ONLY TO THE FOLLOWING BINDINGS:

COMPETITION

ER 20.0 (x) FREEFLEX EVO, ER 16.0 (x) FREEFLEX EVO

RACE

ER 17.0 FREEFLEX PRO, ER 11.0 FREEFLEX PRO, ER 11.0,

FUSION

ELX 14.0 FUSION, ELX 12.0 FUSION, ELX 12.0 FUSION WB95, ELX 11.0 FUSION, ELW 11.0 FUSION (Lady), EL 11.0 FUSION, EL 10.0 FUSION, ELW 10.0 FUSION (Lady)

QuickTrick (QT)

EL 10.0 QT, EL 10.0 QT WB90, ELW 9.0 QT (Lady)

QuickTrick (QT) JUNIOR

EL 7.5 AC QT, EL 7.5 AC QT WB90, EL 4.5 AC QT, EL 4.5 AC QT WB84

SET

EFS 10.0 WB90, EL 10.0

AAA Series

ADRENALIN 13 w/o Short, ADRENALIN 13 w/o Long, ATTACK 18 (X) w/o brake, ATTACK 16 w/o brake, ATTACK 13 w/o brake, ATTACK 13 DEMO w/o brake, ATTACK 11 w/o brake, AMBITION 12 w/o brake, AMBITION 10 w/o brake

SET Junior/Kid

EL 7.5 AC, EL 4.5 AC

RENTAL

ESP 10.0 w/o brake, ESP 10.0, ESP 7.5 AC, ESP 4.5 AC, ESR 10.0

RETAILER AGREEMENTS AND INDEMNIFICATION AGREEMENTS

Both Agreements must be completed annually. This year's Retailer and Indemnification Agreements should already be completed; if not please contact customer service or your sales rep. Agreements and Certification Exams should be received at Alpina Sports Corp. USA / ELAN Sports, Inc. Canada no later than December 31, 2015.

An administration fee of $10.00 U.S. per year for each certified mechanic (max. $ 60 U.S. per location) will be charged by ELAN. If a retailer loses his only ELAN certified mechanic, he must notify Alpina Sports Corp. USA / ELAN Sports, Inc. Canada in writing within 48 hours.

SUMMARY OF REQUIREMENTS

These basic requirements help assure that the end product which is delivered to the customer is appropriate.

- Signed, current copies of the ELAN Authorized Retailer Agreement and the ELAN Bindings Indemnification Agreement must be on file with Alpina Sports Corp. USA / ELAN Sports, Inc. Canada.
- The shop must adhere to 2015/16 ELAN procedures for selection, mounting, adjusting, testing and/or servicing of system components as detailed in this manual.
- The actual ELAN retention/release adjustment, or its equivalent, must be used.
- An ELAN Certified Mechanic must properly mount, inspect, adjust and/or service system components and/or check to make sure all service, adjustments, testing and record keeping was properly completed.
- Mechanics must receive full training, including hands-on practice in the use of system testing devices, as provided by the testing device supplier. A multiple operator reproducibility test should be completed and results documented by the shop each season.
- The shop must maintain records of all retail/rental testing and/or service work for 5 years or for the length of the statute of limitations in the state where your business resides, whichever is longer. Bear in mind that the statute of limitations for minors begins only when they come of legal age.

PAPERWORK REQUIREMENTS

ELAN Retail/Rental Workshop tickets have demonstrated their usefulness in the legal system, and we strongly recommend their use. At the very minimum, records must contain the following information:

- Identification of shop and customer: name, address, phone.
- Date of transaction or work.
- Information on which binding settings are based: skier height, weight, skier type, age, boots sole length.
- A full description of the equipment being serviced or rented (skis /boots/ bindings), including but not limited to brand, model, size and serial numbers.
- Skier code, "Initial" binding release/retention settings, and final settings.
- Signed, dated statement from the ELAN Certified Mechanic that all manufacturer's procedures have been completed, and the signature of the mechanic who performed the service (if they are different individuals):
- An agreement dated and signed by the customer, the language of which is substantially similar to the current

ELAN form. This agreement must include the following points:

- User verification of skier information.
- WARNING that there are risks of injury inherent in the sport of skiing and that the customer accepts those risks.
- DISCLOSURE of the equipment's limitations, that it will not release, retain or prevent injury under all circumstances, and is no guarantee of the user's safety.
- RELEASE language whereby the user releases the retailer, manufacturer and distributor from liability and damages, to the fullest extent allowed by law.
- STATEMENT that no warranties of any kind are offered by the shop beyond those offered by ELAN.
- AGREEMENT that instruction in the use of the equipment has been received, that the skier height, weight, skier type, age, boot sole length, as well as the settings on the binding match those on the record form, and that the skier will inspect the system, including the binding's AFD, before each use.
- Signatures by both the customer and ELAN Certified Mechanic are required by for the ELAN Retailer Indemnity Program.

NOTE:

- Any changes in documentation requirements must be authorized in writing by Alpina Sports Corp. USA. / ELAN Sports, Inc. Canada.

  POST-ACCIDENT INSPECTION REPORT (see page 90).

  In addition to the above information on the system's performance, fill out a Post-Accident Report when you become aware that an injury has occurred. Keep this document for 5 years or the duration of the statute of limitations for minors, whichever is longer.

IN THE EVENT OF AN INJURY CLAIM

- Notification to Alpina Sports Corp. USA / ELAN Sports, Inc. Canada by retailer, of any bodily injury claim, must be made in writing on or before the tenth calendar day from the date on which the retailer first received notice of any such claim. In the event of a lawsuit the retailer must notify his/her own attorney and must cooperate with Alpina Sports Corp. USA / ELAN Sports, Inc. Canada and respond to requests as required.
- In a rental situation, from the time that any injury claim is made to the retailer, the retailer must maintain possession of any equipment that may have been involved in the accident. (Equipment may be returned to service upon passing a post-accident investigation.)
- In the event of an injury, a Post Accident Report must be completed and retained if the shop is in possession of all components of the system. If the entire system is not available for test it should be noted and all pertinent information such as equipment condition, visual indicator settings, and any equipment abnormalities should be recorded.

NOTE:

ELAN reserves the right to deny indemnity if ELAN requirements are not fulfilled. Strict compliance by the dealer with all requirements, as stated in the ELAN-Binding Indemnification Agreement, is a condition precedent to favorable consideration of a request for indemnity.

This is only a summary. The precise requirements of the ELAN-Binding Indemnification Program are contained in your ELAN-Binding Indemnification Agreement.

ELAN Limited Warranty

ELAN authorized distributor in the country in which this product was first sold at retail, warrants to the first retail purchaser or user that this product shall be free from defects in materials and workmanship. This limited warranty, as well as any implied warranty, shall expire two years from date of the initial retail purchase. In USA and Canada this period for retail bindings is four years from date of purchase or five years from date of manufacture, whichever period expires earlier. For rental bindings it is always two years from date of purchase.

For warranty claims or service, the product must be returned at the consumer's expense to the place of purchase, or to another authorized ELAN dealer or to the uthorized ELAN distributor in the country of purchase. The "Instructions for Use" booklet, the proof of purchase, and proof of periodic service must accompany all bindings returned under warranty.

LIMITATION OF LIABILITY

In no event shall ELAN be liable for incidental, consequential statutory or exemplary damages, whether the action is in contract, warranty, negligence or strict liability, including without limitation, loss to property other than the binding, loss of use of the binding or other property, or other economic losses. ELAN shall not be liable for contribution or indemnification, whatever the cause.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Some states do not allow the exclusion of limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

SERVICE UNDER THE ELAN WARRANTY

Products requiring service under the terms of the warranty should be dealt with as follows:

- Send the complete binding set to the authorized distributor where evaluation will be made and warranty action taken if required.
- If a clear warranty situation exists, and the shop wishes to replace the pair of bindings products out of stock for a customer, the shop may do so after the approval of the ski warranty department of your ELAN distributor.
- Be sure to check suitability and mounting hole pattern before making a change of model.
- When possible, the replacement should be of the same model as the returned product.
- If the same model is not available, the shop should contact the authorized ELAN distributor warranty department for authorization before a more expensive model is selected for replacement.
- If a replacement is made from retailer stock, the complete binding set should be returned to the authorized ELAN distributor as soon as possible.
- The packing list must clearly state which model was used for replacement.
- The "Instructions for Use" booklet (warranty), and proof of purchase must accompany all products returned for consideration.
- No credits will be issued.
- The authorized ELAN distributor reserves the right to deny replacement to the retailer if the alleged problem is not verified or if products are returned without the "Instructions for Use" booklet and proof of purchase.
- Replacement bindings are covered by the warranty stated above.
- Any bindings returned to the authorized ELAN distributor due to inappropriate release values (i.e. values which fall outside the "In-Use" tolerance range on the current ELAN Adjustment Chart) must be accompanied by a completed System Performance Report. The report form is printed in this manual; no warranty action will be taken on release value related claims unless this report accompanies the returned bindings.

Distributor addresses:

Alpina Sports Corp.
93 Etna Rd.
Lebanon, NH 03766
USA
Toll Free: +1 800 425-7462
Phone: +1 (603) 448 3101
Fax: +1 (603) 448 1586

ELAN Sports, Inc.
81 H. Brunswick Blvd.
Dollar des Ormeaux, QC H9B 2J5
Canada
Toll Free: +1 800 361 7860
Phone: +1 (514) 421 7871
Fax: +1 (514) 421 7394

Risk Management

Indemnification, Insurance, and your liabilities.

INDEMNIFICATION

Indemnification simply means that someone agrees to reimburse you for certain costs. In the ski industry it normally means that provided you fully follow the manu-facturer's requirements and install and adjust the binding system correctly, the manufacturer or distributor will provide a defense and pay any judgment which may be entered against you if you are the subject of a claim or suit by a customer who claims to have suffered bodily injury as a result of using certain equipment.

The key here is you must be able to prove you properly performed the service and properly represented the product. If you do not, you will not be entitled to a defense or indemnification in the event of a claim.

YOUR PERSONAL LIABILITY

It's simple: If you make a mistake which causes harm to another, you can be held liable for it.

Be very careful not to make verbal warranties that extend beyond those made by ELAN. Read the manufacturer's literature and warranties carefully. If a feature or benefit is not mentioned there, it is not offered by the manufacturer.

SHOP LIABILITY INSURANCE

No indemnification program is a substitute for liability insurance.

Common sense dictates that you should have an insurance policy that covers your shop and employees for commercial general liability and completed operations. Check with your insurance broker.

SHOP PROCEDURES TO REDUCE LEGAL EXPOSURE

Risk Management has become a very important area in virtually every industry. In today's world it is more impotant than ever to do as much as possible to recognize how and where we might be exposing ourselves to a potentially serious problem.

If these procedures are followed properly, both the skier and the industry are well served. In the event of a mishap, the programs documentation and record keeping system will provide strong evidence of work performed.

YOUR OBLIGATIONS UNDER THE ELAN RETAILER INDEMNIFICATION PROGRAM

Selecting equipment for your customer.

- Make sure the products are suitable for the skiers height, weight, shoe size and level of ability.
- Always make sure your recommendations are consistent with the manufacturer's product description, representation, and specifications.

BINDING SELECTION

Generally, the idea that top of the line products offer the greatest margins for safety as well as performance and durability is correct – provided the skier fits the weight range of the product. Combine this knowledge with our weight and ability recommendations for the skier when selecting a binding. Do not sell a product with the idea that the customer will grow into it. If a product is not suitable for their current requirements make another choice.

Avoid the temptation to do the customer a favor by rewriting the rules. More often than not, all you will do is cause problems and incur liability.

At the time of delivery to the customer, the bindings must be accompanied by all the informational materials supplied by the manufacturer, i. e., pamphlets, forms, etc.

The product must be fully demonstrated to either the intended user or their parent or legal guardian if the child is a minor.

This includes instructions on inspecting the low friction surfaces, cleaning the boot sole, entry of the binding, re-entry after releasing on the hill and exiting the system.

You must also explain what care and maintenance the skier or their parent or legal guardian is responsible for, as well as when to return the equipment to your shop for a thorough function check. Routine maintenance is the most cost effective thing a skier can do to protect their well being.

BOOT SELECTION

Make sure the customer's boot choice is consistent with their level of skiing and that the boots meet all current DIN or ISO standards.

SKI SELECTION

Take care to ensure that the skier's intended use of the chosen equipment is consistent with the manufacturer's recommendation for the skier's weight and level of skiing. This is another area where regular maintenance is critical.

RACING (X) BINDINGS

Certain binding models are produced by ELAN each year for the exclusive use of qualified competitors under the supervision of ELAN Technical Specialists. These bindings are not covered by either the ELAN Warranty or any Dealer Indemnification Program. We recommend you decline to service them, and warn against their use.

In a similar vein some skiers may wish to use retention settings which are excessive. DIN settings over 10 do not satisfy current industry standards and should not be used. Adjustments exceeding this range are made on one's own risk.

COMPLETING THE WORK ORDER WITH THE CUSTOMER

It is critical that certain basic information be included on all shop work orders.

Once the customer has selected equipment or described the repair or service to be performed, the technician must ask the customer to complete a portion of the Work Order Form which includes their Name, Address, Phone number, Weight, Height, Age, Sex, and Skiing ability.

The skier must then sign indicating that they have read, understood, and agreed to the terms of your Rental/ Repair agreement (this agreement must comply with

ELAN Dealer Indemnity Program requirements).

It is also important that the customer be informed that they will be expected to verify in writing that the indicator settings agree with what is written on the form, and that they have been instructed in the use and maintenance of their equipment, and fully understand it.

This procedure must be completed before the transaction is consummated. Remember, the customer has the option of going to another store if the terms of the contract are not acceptable to them, and under no circumstances should the transaction go any further without their signature. The end user, or their agent, must sign the incoming work order.

SHOP PROCEDURES SUMMARY

For in depth details, see the “Binding Installation” section of this manual.

- Follow ELAN procedures for inspection, mounting, adjustment and maintenance as appropriate.
- Confirm that toe and heel indicator values match those specified on the actual ELAN Adjustment Chart.
- Using a calibrated testing device, according to the manufacturer’s instructions for use, “exercise” the binding by releasing it at least once in each direction (clockwise and counterclockwise at the toe, vertically at the heel). Then measures Twist and Forward Lean Torque Values. The middle quantitative value of 3 releases in each direction should be used as the test result.
- Compare Twist and Forward Lean test, results with the System Inspection Ranges on the actual ELAN Adjustment Chart.
- After the equipment is adjusted to the skier’s needs according to the manufacturer’s standards, the certified technician signs the form indicating that the work has been completed according to the manufacturer’s specifications.
- With testing complete, the ELAN Certified Technician must complete and sign the workshop ticket. Be sure the Final Indicator Settings are correctly shown there. The workshop ticket should simply reflect that the system has “passed all tests” or that “all manufacturer’s procedures have been completed”.

PROCEDURES FOR RETAIL CUSTOMER PICK-UP

All that’s involved is properly informing the skier about the realities of skiing and ski equipment.

- Explain the function and operation of the binding, including a review of the manufacturer’s pamphlet.
- Explain the settings that show in the release setting windows and how they were derived by referring to the manufacturer’s release adjustment charts.
- Explain how much proper maintenance of the entire system (boots, bindings and skis) can improve their enjoyment and margins for safety. Also make it clear that skiing, like any sport, has its risks, and equipment can not eliminate them.
- Have the customer sign the form again indicating that they have been instructed on the use of the equipment and that they verified that the visual release indicators on the bindings correspond to the manufacturer’s recommended settings shown on the work order ticket.

ARCHIVING RECORDS

- Collect a copy of the technical manual for each and every binding, boot and ski on the market. Be especially diligent with those you carry or work on regularly.
- Copies of the manufacturer’s customer instruction booklets.
- Technician employment applications. Make sure they have the address of someone who will always know where they can be found.
- This can be invaluable if you need the technican as a witness.
- A listing of all technician certifications and their dates. Keep all certification records as well.
- Copies of any pertinent wall charts, customer information posters, etc.
- A copy of your shop procedures, including training materials, rental and repair shop practices, and binding setting charts.
- Copies of rental fleet test data.

This type of supporting documentation can be tremendously useful for your lawyer.

STORAGE OF FORMS

All forms containing the customer’s signature must be kept for a minimum of five years or the term of the statute of limitations in the state where the injury occurs, or your state, whichever is longer. As a practical matter you have no idea where or when your customer may sustain an injury on this equipment.

Naturally, should an injury occur, keep the original form in a safe place until any claims are completely resolved.

Risk Management is really just common sense. Do your job well, have integrity, keep your customers well informed, and keep proper records. Follow these simple suggestions and you will limit the likelihood of problems.

Use of Non-Recommended Settings

SKIERS REQUESTING SETTINGS NOT RECOMMENDED BY ELAN

The 2015/16 ELAN Release/Retention Adjustment Table is the only adjustment chart recommended for use by ELAN dealers during the 2015/16 season.

Some skiers may request settings different from those in the ELAN Release/Retention Adjustment Table. Most of these concerns can be addressed by following the procedures for reclassifying skier type and for troubleshooting which follow the instructions for using the ELAN Release/ Retention Adjustment Table.

ELAN and the ISO/ASTM standards organizations do not recommend the use of release/ retention settings outside of these tolerances, but skiers occasionally may request such settings. ELAN recognizes a skier's right to choose other settings, but if the skier requests settings outside of those derived from the normal procedures for re-classifying skier type and for troubleshooting, the shop may either:

1. Adjust the system to the setting derived from ELAN Release/Retention Adjustment Table and instruct the skier on how to change the setting (if this done, make a note to this effect on the workshop or rental form), or

2. Adjust the system to the skier's individual request, but only if the technician notes on the workshop or rental form the reason the higher or lower setting was requested. Do not in any case adjust the system to a release/retention value higher than the maximum acceptable setting at the bottom of the ELAN Release/ Retention Adjustment Table. The customer must verify the request for the higher or lower settings by signing and dating the workshop or rental form by the reason noted next to the setting request. The skier must also read and sign a warning, release and indemnity agreement identical to the one printed on this page. In such cases, the system will only be indemnified if all other conditions of indemnification are met and the signed warning, release and indemnity agreement are attached to the completed workshop or rental form.

Warning, Release and Indemnity Agreement

I, _____,
hereby acknowledge that I have been advised by the

_____ rental shop,
sales department, etc.) that settings which I have requested for

my bindings (Model _____) is not the setting recommended by the manufacturer of the bindings for a skier of my height, weight, age and skier type. I understand and acknowledge that there may be an increased risk of injury or death to me as a result of my own personal preference for these binding settings.

To the fullest extent allowed by law, I hereby waive and release all claims arising from the use of the bindings and release from all liability the shop, the distributor and the manufacturer, their agents and employees, and I further agree to indemnify them from any and all liability or harm or damage of any kind whatsoever which may result from the use of these bindings by myself or anyone I allow to use the bindings.

If I am using Competition Bindings, such as ELAN - X bindings, my doing so is based entirely upon my personal decision to use them. Competition bindings are not intended for use by recreational skiers because they have release and retention features that do not comply with national and international safety standards. I understand and acknowledge that competition bindings are made for high level competitors who, based upon their personal experience, have decided that they have special retention requirements that exceed the capabilities of recreational ski equipment and the standards that apply to recreational ski equipment. I understand and agree that any use of this equipment may significantly increase the risk of injury due to non-release or other events, and I assume all risk of injury or death that may result from using competition equipment.

I, the undersigned, have read and understand this liability release agreement, and agree that it is binding upon me, my heirs, guardians, administrators, assigns, and legal representatives. If any part of this agreement is held to be invalid or unenforceable, the remainder shall be given full force and effect.

_____
Skier's Signature
(or that of the skier's parent or guardian)

_____
Shop Manager's Signature

POST ACCIDENT INSPECTION REPORT

Date of Accident _____ Workshop Ticket # _____

Skier Name _____ Skier Phone _____

Address _____ Witness Name _____

City, State Zip _____ Witness Phone _____

Skier's Description of Accident and Injury _____

_____

_____

_____

_____ **(Use Back For Additional Comments)**

Description of System						**Rented**	**Purchased**
Ski Brand	_____	Model	_____	Size	_____	_____	_____
		Serial #	_____	Inv. #	_____		
Boot Brand	_____	Model	_____	Size	_____	_____	_____
Binding Brand	_____	Model	_____	Size	_____	_____	_____

Condition of System

Are the boot soles within industry standards?	Yes	_____	No	_____	
Are all buckles, boot adjustments functioning correctly?	Yes	_____	No	_____	
Are the A.F.D.'s Intact ?	Yes	_____	No	_____	
What are the Visual Indicator Settings?	Toe	_____	Heel	_____	
Is the Forward Pressure set correctly?	Yes	_____	No	_____	
Is the Toe Height set correctly?	Yes	_____	No	_____	NA _____
Do the brakes function smoothly?	Yes	_____	No	_____	
Is the ski bent delaminated or damaged?	Yes	_____	No	_____	
Describe: _____					
Was the equipment returned to service post-accident?	Yes	_____	No	_____	

Mechanical System Testing

Testing Device _____ Last Calibration date / /

		Clockwise	Ctr Clockwise	Clockwise	Ctr Clockwise
Toe	L	_____	_____	R _____	_____
Heel	L	_____	R _____		

Background

Shop Name _____

Inspected By _____ Inspector Signature _____

Checked By _____ Checker Signature _____

SYSTEM PERFORMANCE REPORT

Shop Name _____

Phone _____

Address _____

City _____

State, Zip _____

Date Report Completed / / Workshop Ticket Date / /

Workshop Ticket # _____

Inspector's Name _____ Position _____

A. Description of System **Rented** **Purchased**

Ski Brand _____ Model _____ Size _____ _____ _____

Serial # _____ Inv. # _____

Boot Brand _____ Model _____ Size _____ _____ _____

Binding Brand _____ Model _____ Size _____ _____ _____

B. System Performance

Boot Sole Length _____ mm Binding Indictator Setting Toe L _____ R _____

Condition _____ Heel L _____ R _____

Testing Device _____ Last Calibration date / /

Chart date / /

"In Use" Torque Tolerance: Forward Lean _____ Twist _____

Measured Release Values:

	Clockwise	Ctr Clockwise		Clockwise	Ctr Clockwise
Toe	L _____	_____		R _____	_____
Heel		L _____	R _____		

Appendix:

The binding list for retailers – previous seasons:

Season 05/06

ER 17.0 FREE FLEX+, ER 11.0 FREE FLEX+, ER 11.0, Fusion PRO, ELD 12.0 FUSION PRO, ELD 11.0 FUSION PRO, ELD 12.0 FUSION, ELD 11.0 FUSION, EL 10.0 FUSION RED, EL 9.0 FUSION, ELD 11 TMD, EL 10 TMD ,ELW 9 TMD, ELD 14.0, ELD 14.0 Wide, EL 10.0, EL 7.0,EL 4.5, ESP 13.0, ESP 12.0, ESP 10.0, ESP 7.0, ESP 4.5, ESR 10.0, ESR 7.0, ESR 4.5, ELD 12.0 XP, ELD 11.0 XP, EL 10.0 XP, EL 7.0 XP

Season 06/07

ER 17.0 FREE FLEX+, ER 11.0 FREE FLEX+, ER 11.0, ELD 14.0 FUSION PRO, ELD 12.0 FUSION PRO, ELD 11.0, FUSION PRO, ELD 12.0 FUSION, ELD 11.0 FUSION, EL 11.0 FUSION, EL 10.0 FUSION, ELW 9.0 FUSION, ELD 11.0 TMD, EL 10.0 TMD, ELW 9.0 TMD Jr, EL 7.0 TMD Jr, EL 4.5 TMD Jr, ELD 14.0, ELD 14.0 Wide, EL 10.0, EL 7.0, EL 4.5, ESP 13.0, ESP 10.0, ESP 7.0, ESP 4.5, EL 11.0 XP

Season 07/08

ER 17.0 FREE FLEX+, ER 11.0 FREE FLEX+, ER 11.0 , ELD 12.0 FUSION PRO, ELD 11.0 FUSION PRO, ELD 14.0 FUSION Wide, ELD 12.0 FUSION, ELD 12.0 FUSION Wide, ELD 11.0 FUSION, EL 11.0 FUSION, EL 10.0 FUSION, ELW 11.0 FUSION, ELW 11.0 FUSION Wide, ELW 9.0 FUSION, ELD 11.0 TMD, EL 10.0 TMD, ELW 9.0 TMD Jr, EL 7.0 TMD Jr, EL 4.5 TMD Jr, ELD 14.0, ELD 14.0 Wide, ELW 11.0, EL 10, EL 7.0, EL 4.5, ESP 13.0, ESP 10.0, ESP 7.5, ESP 4.5

Season 08/09

ER 17.0 FREEFLEX PRO, ER 11.0 FREEFLEX PRO, ER 11.0, ELX 14.0 FUSION, ELX 12.0 FUSION, ELX 12.0 FUSION Wide, ELX 11.0 FUSION, EL 11.0 FUSION, EL 10.0 FUSION, ELW 11.0 FUSION, ELW 9.0 FUSION, EL 10.0 TMD, ELW 9.0 TMD Jr, EL 7.5 TMD Jr, EL 4.5 TMD Jr, EFR 15.0 Wide, ELX 14.0, ELX 14.0 Wide, ELW 11.0 Wide, EL 10.0, EL 7.5, ELC 7.0, EL 4.5, ELN 10.0, ELN 7.0, ELN 4.5, ESP 13.0, ESP 10.0, ESP 7.5, ESP 4.5

Season 09/10

ER 17.0 FREEFLEX PRO, ER 11.0 FREEFLEX PRO, ER 11.0, ELX 14.0 FUSION, ELX 12.0 FUSION, ELX 12.0 FUSION Wide, ELX 11.0 FUSION, EL 11.0 FUSION, EL 10.0 FUSION, ELW 11.0 FUSION, ELW 9.0 FUSION, EL 10.0 TMD, ELW 9.0 TMD Jr, EL 7.5 TMD QUICK TRICK, EL 4.5 TMD QUICK TRICK, EFR/FS 18.0 XFAT, EFS 14.0 Wide, ELX 14.0, ELW 11.0 Wide, EL 10.0, EL 7.5, ELC 7.0, EL 4.5, ESP 13.0, ESP 10.0, ESP 7.5, ESP 4.5

Season 10/11

ER 17.0 FREEFLEX PRO, ER 11.0 FREEFLEX PRO, ER 11.0, ELX 14.0 FUSION, ELX 12.0 FUSION, ELX 12.0 FUSION Wide, ELX 11.0 FUSION, EL 11.0 FUSION, EL 10.0 FUSION, ELW 11.0 FUSION, ELW 9.0 FUSION (Lady), EL 10.0 TMD, EL 10.0 QT, ELW 9.0 TMD Jr, ELW 9.0 QT Jr, EL 7.5 QT Jr, EL 4.5 QT Jr, EFR/FS 18.0 XFAT, EFS 15.0 Wide, EFS 14.0 Wide, ELX 14.0, ELW 11.0 Wide, EL 10.0, EL 7.5, ELC 7.0, EL 4.5, ESP 13.0, ESP 10.0, ESP 7.5, ESP 4.5, ESR 10.0

Season 11/12

ER 17.0 FREEFLEX PRO, ER 11.0 FREEFLEX PRO, ER 11.0, ER 11.0 Wide, ELX 14.0 FUSION, ELX 12.0 FUSION, ELX 12.0 FUSION Wide, ELX 11.0 FUSION, EL 11.0 FUSION, EL 10.0 FUSION, ELW 11.0 FUSION, ELW 9.0 FUSION, EL 10.0 TMD, EL 10.0 QT, ELW 9.0 TMD Jr, ELW 9.0 QT Jr, EL 7.5 QT Jr, EL 7.5 QT Jr Wide, EL 4.5 QT Jr, EL 4.5 QT Jr Wide, EFR/FS 18.0 XFAT, EFS 15.0 Wide, ELX 14.0, ELW 11.0 Wide, EL 10.0, EL 10.0 Wide, EL 7.5, ELC 7.0, EL 4.5, ESP 13.0, ESP 10.0, ESP 7.5, ESP 4.5, ESR 10.0

Season 12/13

ER 17.0 FREEFLEX PRO, ER 11.0 FREEFLEX PRO, ER 11.0, ER 11.0 Wide 97, ELX 14.0 FUSION, ELX 12.0 FUSION, ELX 12.0 FUSION Wide 88, ELX 11.0 FUSION, ELW 11.0 FUSION, EL 11.0 FUSION, EL 10.0 FUSION, ELW 10.0 FUSION, EL 10.0 QT, EL 10.0 QT Wide 90, ELW 9.0 QT, EL 7.5 AC QT, EL 7.5 AC QT Wide 90, EL 4.5 AC QT, EL 4.5 AC QT Wide 84, EFS 18.0 w/o brake, EFS 15.0 w/o brake, ELX 14.0 w/o brake, ELW 11.0 w/o brake, EL 10.0, EL 10.0 Wide 90, ADRENALIN 16 w/o Short, ADRENALIN 16 w/o Long, SET Junior/Kid, EL 7.5 AC, EL 4.5 AC, ESP 13.0 w/o brake, ESP 10.0, ESP 7.5, ESP 4.5 AC, ESR 10.0

Season 13/14

ER 17.0 FREEFLEX PRO, ER 11.0 FREEFLEX PRO, ER 11.0, ELX 14.0 FUSION, ELX 12.0 FUSION, ELX 12.0 FUSION Wide 88, ELX 11.0 FUSION, ELW 11.0 FUSION, EL 11.0 FUSION, EL 10.0 FUSION, ELW 10.0 FUSION, EL 10.0 QT, EL 10.0 QT Wide 90, ELW 9.0 QT, EL 7.5 AC QT, EL 7.5 AC QT Wide 90, EL 4.5 AC QT, EL 4.5 AC QT Wide 84, EFS 18.0 w/o brake, EFS 12.0 w/o brake, EFS 10.0 Wide 90, EL 10.0, ADRENALIN 16 w/o Short, ADRENALIN 16 w/o Long, ADRENALIN 13 w/o Short, ADRENALIN 13 w/o Long, ATTACK 16 w/o brake, ATTACK 13 w/o brake, AMBITION 12 w/o brake, EL 7.5 AC, EL 4.5 AC, ESP 13.0 w/o brake, ESP 10.0, ESP 7.5 AC, ESP 4.5 AC, ESR 10.0

Season 14/15

ER 17.0 FREEFLEX PRO, ER 11.0 FREEFLEX PRO, ER 11.0, FUSION, ELX 14.0 FUSION, ELX 12.0 FUSION, ELX 12.0 FUSION Wide88, ELX 11.0 FUSION, ELW 11.0 FUSION (Lady), EL 11.0 FUSION, EL 10.0 FUSION, ELW 10.0 FUSION (Lady), EL 10.0 QT, EL 10.0 QT Wide90, ELW 9.0 QT (Lady), EL 7.5 AC QT, EL 7.5 AC QT Wide90, EL 4.5 AC QT, EL 4.5 AC QT Wide84, EFS 18.0 w/o brake, EFS 12.0 w/o brake, EFS 10.0 Wide90, EL 10.0, ADRENALIN 13 w/o Short, ADRENALIN 13 w/o Long, ATTACK 16 w/o brake, ATTACK 13 w/o brake, ATTACK 13 DEMO w/o brake, AMBITION 12 w/o brake, AMBITION 10 w/o brake, EL 7.5 AC, EL 4.5 AC, ESP 10.0 w/o brake, ESP 10.0, ESP 7.5 AC, ESP 4.5 AC, ESR 10.0

Racing (X) Word Cup models:

ER 20.0 FREE FLEX+, ER 16.0 FREE FLEX+, ER 20.0 FREE FLEX PRO, ER 16.0 FREE FLEX PRO, ER 20.0 FREE FLEX EVO, ER 16.0 FREE FLEX EVO

EQUIPMENT RENTAL FORM

PLEASE PRINT CLEARLY

Date out | Date in

Last Name | First Name

Address / City | Prov. / State | Country | Postal Code / Zip

Phone Number | e-mail | Local Phone Number

Your Weight ___ lbs. kg | Your Height ___ ft. m ___ in. cm | Skier Type (Circle One) I II III | Age | No. of Days Wanted

FOR OFFICE USE ONLY

Skier Code

Final Indicator Setting:

T ___ L T ___ R

H ___ L H ___ R

A Jr

Single Code

	Rent	Own	ID # or Description
Skis	☐	☐	
Boots	☐	☐	
Poles	☐	☐	
Suit	☐	☐	
S-board	☐	☐	
S-board Boots	☐	☐	
Cross Country	☐	☐	
Other	☐	☐	
Other	☐	☐	
Insurance		Yes ☐	No ☐

WEIGHT LBS/KILOS	HEIGHT FT' IN" / METRES	SKIER CODE	INITIAL INDICATOR VALUE SOLE LENGTH (mm) ≤ 250 / 251 270 / 271 290 / 291 310 / 311 330 / ≥ 331 SINGLE CODE a n	o s/B	t/C G	H L	M Q	R 6
22 - 29 lbs. 10 - 13 kilos		A	¾	¾				
30 - 38 lbs. 14 - 17 kilos		B	1	1	¾			
39 - 47 lbs. 18 - 21 kilos		C	1½	1¼	1			
48 - 56 lbs. 22 - 25 kilos		D	1¾	1½	1½	1¼		
57 - 66 lbs. 26 - 30 kilos		E	2¼	2	1¾	1½	1½	
67 - 78 lbs. 31 - 35 kilos		F	2¾	2½	2¼	2	1¾	1¾
79 - 91 lbs. 36 - 41 kilos		G	3½	3	2¾	2½	2¼	2
92 - 107 lbs. 42 - 48 kilos	≤ 4'10" ≤ 1.48	H		3½	3	3	2¾	2½
108 -125 lbs. 49 - 57 kilos	4'11"- 5'1" 1.49 - 1.57	I		4½	4	3½	3½	3
126 - 147 lbs. 58 - 66 kilos	5'2" - 5.5" 1.58 - 1.66	J		5½	5	4½	4	3½
148 - 174 lbs. 67 - 78 kilos	5'6" - 5'10" 1.67 -1.78	K		6½	6	5½	5	4½
175 - 209 lbs. 79 - 94 kilos	5'11" - 6'4" 1.79 - 1.94	L		7½	7	6½	6	5½
≥ 210 lbs. ≥ 95 kilos	≥ 6'5" ≥ 1.95	M			8½	8	7	6½
		N			10	9½	8½	8
		O			11½	11	10	9½
		P					12	11½

COMMENTS:

REFERRED BY:

X

TECHNICIAN'S SIGNATURE

AMOUNT PAID _____

I have read, understood and agreed to all terms and condition on the reverse side of this form.
I accept full financial responsibility for the equipment listed on this form and promise to return it clean and undamaged by the agreed time and date. If I fail to do so, I agree to pay for its repair, cleaning or replacement at the full retail rate, as determined by the shop, as well as for the rental value of any additional days.
(For release bindings only: I have confirmed that the binding release/retention setting numbers on the bindings correspond to the „Final Indicator Setting" stated on this form. I understand that correct weight, height, age and skier type are essential to proper adjustment of the release/retention settings, and I certify that all user information on this form is correct).

X

SIGNATURE OF USER OR AGENT

DATE

X

PARENT'S SIGNATURE IF USER IS A MINOR

DATE

WARNING, LIABILITY RELEASE, INDEMNITY AGREEMENT AND ASSUMPTION OF RISK AGREEMENT

PLEASE READ CAREFULLY

ASSUMPTION OF RISKS
I understand how this equipment works and have received proper instruction and satisfactory answers to any questions. If at any time this equipment does not seem to be working properly, I will stop using it immediately and return it for inspection and possible repair or adjustment. If this equipment is to be used by someone other than me, I certify that I am acting for the ultimate user and that I will provide this form and all other warnings and information to the ultimate user. I understand and agree that skiing, snowboarding, skiboarding and related activities are **HAZARDOUS** and that injuries are common and ordinary occurrences during these activities. **I AGREE TO ASSUME ALL RISKS OF INJURY OR DEATH** which may result from these activities.

(Please Initial _____)

If Alpine ski equipment or skiboards are beeing furnished, I understand that the ski-boot-binding system will release the boot from the ski when certain forces on system reach preset values, but that it will **NOT RELEASE OR RETAIN** at all times where release or retention may prevent injury, and that it **CANNOT** prevent all injuries or guarantee the user's safety. I understand and agree that unwanted release or retention of bindings is an inherent risk of using any ski-boot-binding system. I further agree and understand that any ski-boot-binding system does **NOT ELIMINATE THE RISK** of injuries to the user's knees or to any other part of this user's body.

If Nordic or Snowboard equipment is being furnished, I understand that these systems normally will **NOT RELEASE** in falls and accidents and that they do **NOT PROTECT** against any type of injury.

To the fullest extent allowed by law, I hereby **RELEASE** this ski shop, and all manufacturers and distributors of this equipment, from **ANY AND ALL RESPONSIBILITY OR LEGAL LIABILITY** for any injuries, damages or death to any user of any equipment listed on this form, whether caused by **NEGLIGENCE** or any other cause. I further agree that **I WILL NEVER SUE** this ski shop, as well as the manufacturers and distributors of this equipment, and that **I WILL DEFEND AND INDEMNITY** them if any claim or action is pursued for any injuries, damages or death relating to skiing, snowboarding. skiboarding or any related activities involving the use of this equipment.

(Please Initial _____)

I accept this equipment **"AS IS"** and with **NO WARRANTIES**, express or implied, beyond those stated herein and in the manufacturer's written limited warranty.

This document constitutes the **FINAL AND ENTIRE AGREEMENT** regarding this transaction and this equipment, and it supersedes any and all other documents or oral statements. If any part is found to be invalid or unenforceable, the remainder shall be given full force and effect.

THIS IS A CONTRACT which provides a **COMPREHENSIVE RELEASE OF LIABILITY**, but it is not intended to assert any claims or defences that are prohibited by law. The specific legal rights of the parties may vary in different states and provinces.

READ CAREFULLY BEFORE SIGNING

X _____ _____
Signature of User or agent Date

X _____ _____
Parent's signature if user is a minor Date

Use of the Equipment Rental Form

1. Verify that the customer has provided all required information. Make sure everything is legible.
2. Under the equipment column: mark if the equipment is rented or owned; enter ID # or description.
3. Mark if the customer wants to insure his equipment.
4. In the weight column: circle the group that contains the customer's weight.
5. In the height column: circle the group that contains the customer's height.
6. Select the skier code closest to the top.
7. Move on the skier code column according to the skier type.
8. Move on the skier code column according to the age.
9. Circle the final skier code
10. Enter the final skier code into the box on the left hand side of the form.
11. Circle the sole length column that contains the sole length of the boot used.
12. Circle the Initial Indicator Value.
13. Determine the ELAN Single Code and enter it in the box.
14. Mark if this is an Adult or a Junior Code.
15. Determine the Final Indicator Setting, adjust the binding accordingly and record the settings on the form.
16. Confirm with your signature that you have adjusted the binding as recorded on the form.

See a sample on the next page!

It is mandatory that you follow the above procedure exactly.

Before dispatching the equipment make sure that the customer:

- **has read and understood the form**
- **initialed and signed the form in all necessary places**
- **If the customer requests special settings, follow the procedures for RELEASE/RETENTION Troubleshooting at page 74.**

EQUIPMENT RENTAL FORM

PLEASE PRINT CLEARLY

Date out: 1/12/09 | Date in:

Last Name: Sample | First Name: Jennifer

Address / City: 111-100th St. Anytown | Prov. / State: MA | Country: USA | Postal Code / Zip: 100001

Phone Number: 101 111 — 0000 | e-mail: j.sample@anywhere.com | Local Phone Number: 123 — 4567

Your Weight: 140 (lbs. / kg) | Your Height: 5 ft. 7 in. / m cm | Skier Type (Circle One): I **II** III | Age: 35 | No. of Days Wanted: 02

FOR OFFICE USE ONLY

Skier Code	Final Indicator Setting:				Single Code
K	T 5.5 L	T 5.5 R	X		J
	H 5.5 L	H 5.5 R	Jr		

	Rent	Own	ID # or Description
Skis	X		SLX Waveflex FRS
Boots		X	KRYPTON PRO
Poles	X		
Suit			
S-board			
S-board Boots			
Cross Country			
Other			
Other			
Insurance		Yes X	No

WEIGHT LBS/KILOS	HEIGHT FT' IN" / METRES	SKIER CODE	INITIAL INDICATOR: an	os/B	t/CG	HL	MQ	R6
			SOLE LENGTH (mm): ≤250	251 270	271 290	291 310	311 330	≥331
22 - 29 lbs. 10 - 13 kilos		A	¾	¾				
30 - 38 lbs. 14 - 17 kilos		B	1	1	¾			
39 - 47 lbs. 18 - 21 kilos		C	1½	1¼	1			
48 - 56 lbs. 22 - 25 kilos		D	1¾	1½	1½	1¼		
57 - 66 lbs. 26 - 30 kilos		E	2¼	2	1¾	1½	1½	
67 - 78 lbs. 31 - 35 kilos		F	2¾	2½	2¼	2	1¾	1¾
79 - 91 lbs. 36 - 41 kilos		G	3½	3	2¾	2½	2¼	2
92 - 107 lbs. 42 - 48 kilos	≤ 4'10" ≤ 1.48	H		3½	3	3	2¾	2½
108 -125 lbs. 49 - 57 kilos	4'11"- 5'1" 1.49 - 1.57	I		4½	4	3½	3½	3
126 - 147 lbs. 58 - 66 kilos	5'2" - 5.5" 1.58 - 1.66	J		5½	5	4½	4	3½
148 - 174 lbs. 67 - 78 kilos	5'6" - 5'10" 1.67 -1.78	K		6½	6	5½	5	4½
175 - 209 lbs. 79 - 94 kilos	5'11" - 6'4" 1.79 - 1.94	L		7½	7	6½	6	5½
≥ 210 lbs. ≥ 95 kilos	≥ 6'5" ≥ 1.95	M			8½	8	7	6½
		N			10	9½	8½	8
		O			11½	11	10	9½
		P					12	11½

COMMENTS:

REFERRED BY:

x John Mastertech
TECHNICIAN'S SIGNATURE

AMOUNT PAID $ XX.XX

I have read, understood and agreed to all terms and conditions on the reverse side of this form.
I accept full financial responsibility for the equipment listed on this form and promise to return it clean and undamaged by the agreed time and date. If I fail to do so, I agree to pay for its repair, cleaning or replacement at the full retail rate, as determined by the shop, as well as for the rental value of any additional days.
(For release bindings only: I have confirmed that the binding release/retention setting numbers on the bindings correspond to the "Final Indicator Setting" stated on this form. I understand that correct weight, height, age and skier type are essential to proper adjustment of the release/retention settings, and I certify that all user information on this form is correct).

x _____ _____
SIGNATURE OF USER OR AGENT — DATE

x _____ _____
PARENT'S SIGNATURE IF USER IS A MINOR — DATE

Elan is fully committed to a comprehensive environmental management system to minimize its impact on nature, as verified by the environmental standard ISO 14001.

Elan, d. o. o., Begunje 1, 4275 Begunje na Gorenjskem, Slovenia.
Elan reserves the right to introduce modifications and changes without prior notice.